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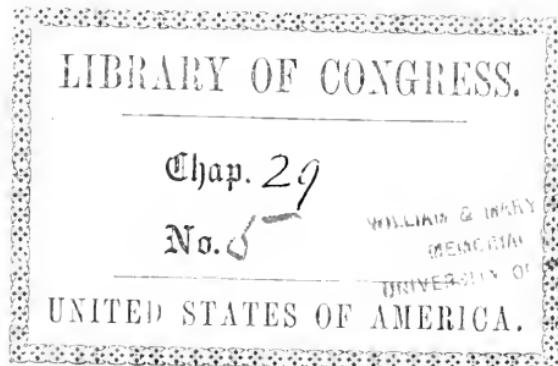
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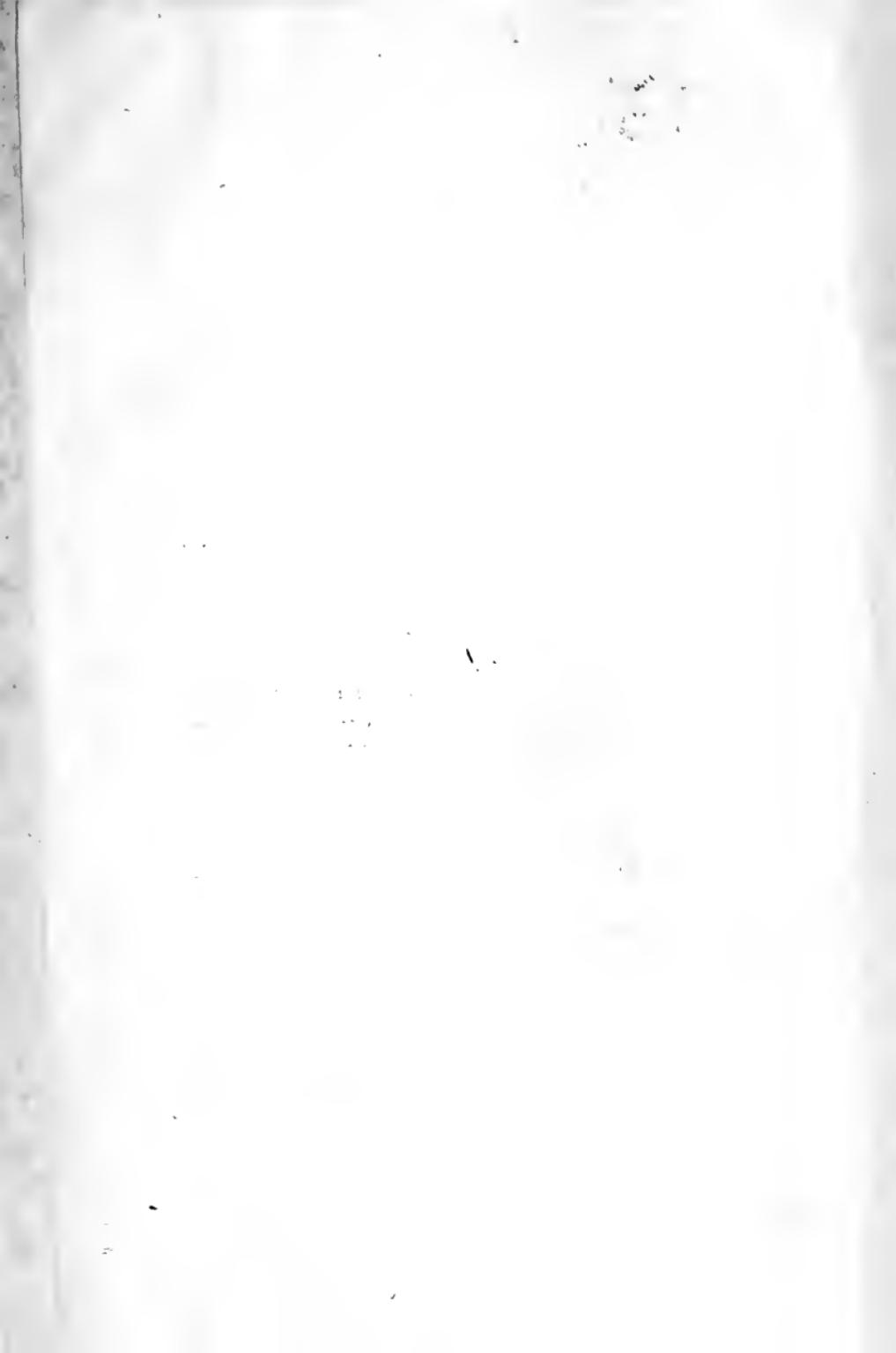
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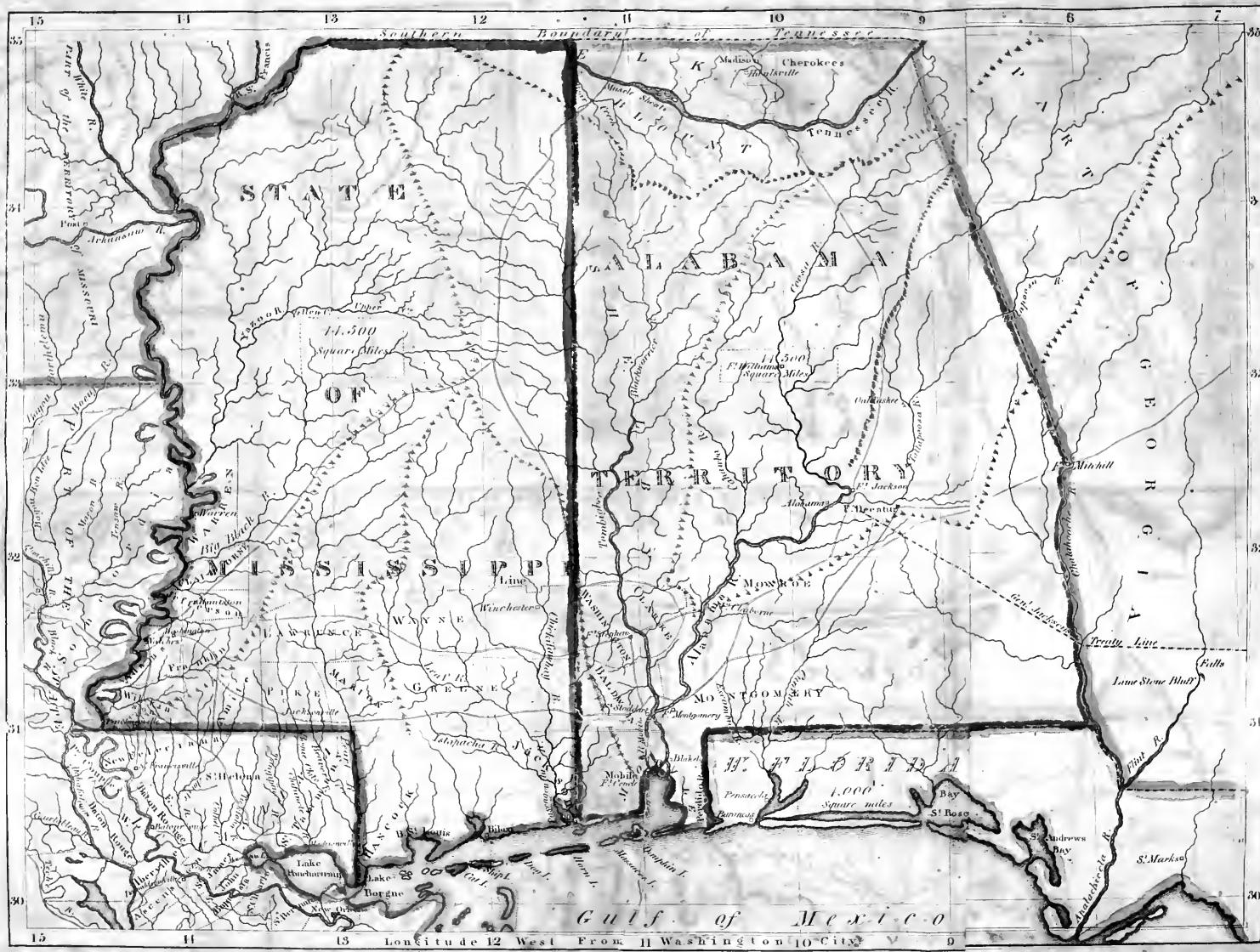


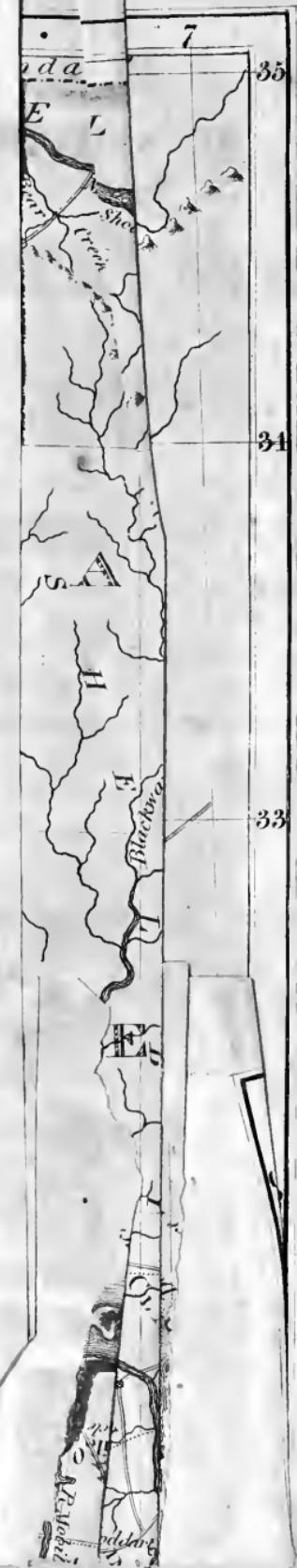






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WILLIAM & MARY DARLINGTON.

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GEOGRAPHICAL DESCRIPTION

OF THE

STATE OF LOUISIANA,

THE SOUTHERN PART OF THE

STATE OF MISSISSIPPI,

AND

TERRITORY OF ALABAMA;

PRESENTING

A VIEW OF THE SOIL, CLIMATE, ANIMAL, VEGETABLE, AND MINERAL PRODUCTIONS; ILLUSTRATIVE OF THEIR NATURAL PHYSIOGNOMY, THEIR GEOGRAPHICAL CONFIGURATION, AND RELATIVE SITUATION: WITH AN ACCOUNT OF THE CHARACTER AND MANNERS OF THE INHABITANTS.

Together with

A MAP,

FROM ACTUAL SURVEY AND OBSERVATION, PROJECTED ON A SCALE OF
TEN MILES TO AN INCH, OF

THE STATE OF LOUISIANA,

AND

ADJACENT COUNTRIES.

SECOND EDITION, ENLARGED AND IMPROVED.

BY WILLIAM DARBY.

Je répéterai encore ce que j'ai déjà dit plusieurs fois, que la Louisiane est sans contredit le plus beau pays de l'univers par la douceur de son climat et son heureuse situation.

L'on y peut cultiver avec succès toutes les plantes de l'Europe, sans distinction, et presque toutes celles de l'Amérique.

Mémoire de M. De Vergennes sur la Louisiane.

NEW-YORK :

PUBLISHED BY JAMES OLMSTEAD,
SOLD ALSO BY B. LEVY & CO. BOOKSELLERS, NEW-ORLEANS,
J. Seymour, printer.

1817.

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SOUTHERN DISTRICT OF NEW-YORK, ss.

BE IT REMEMBERED, That on the twenty-third day of June, in the Forty-first year of the Independence of the United States of America, A. D. 1817, JAMES OLIVSTEAD, of the said district, hath deposited in this office the Title of a Book, the right whereof he claims as Proprietor, in the words following, to wit: -

"A Geographical Description of the State of Louisiana, the southern part of the State of Mississippi, and Territory of Alabama; presenting a view of the soil, climate, animal, vegetable, and mineral productions; illustrative of their Natural Physiognomy, their Geographical configuration, and relative situation, with an account of the character and manners of the inhabitants; together with a Map, from actual Survey and Observation, projected on a Scale of ten miles to an inch, of the State of Louisiana and Adjacent Countries. Second edition enlarged and improved. By William Darby.

"Je répéterai encore ce que j'ai déjà dit plusieurs fois, que la Louisiane est sans contredit le plus beau pays de l'univers par la douceur de son climat et son heureuse situation.

"L'on y peut cultiver avec succès, toutes les plantes de l'Europe, sans distinction, et presque toutes celles de l'Amérique.

Mémoire de M. De Vergennes sur la Louisiane."

In conformity to the Act of the Congress of the United States, intitl'd, "An Act for the encouragement of learning, by securing the copies of Maps, Charts, and Books, to the Authors and Proprietors of such copies, during the time therein mentioned."—And also to the Act, entitled, "An Act supplementary to an act, entitled an act for the encouragement of learning, by securing the copies of Maps, Charts, and Books, to the Authors and Proprietors of such copies during the times therein mentioned, and extending the benefits thereof to the arts of designing, engraving, and etching historical and other prints."

THERON RUDD, Clerk of the Southern District of New-York

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PREFACE TO THE FIRST EDITION.

THE following work has now been several years in progress; events both of a public and private nature have alternately accelerated and retarded its advance.

Its introduction to the public, however, could not have happened at a moment more auspicious than the present, or when correct information respecting Louisiana could have been more interesting.

The author has resided in the region embraced by his work, during the time that has elapsed since its incorporation into the United States' government. The various events and revolutions that have developed the character of the people, and demonstrated the value of Louisiana as an acquisition to the United States, have passed in review before him.

Having eagerly sought and patiently examined all kind of information in any respect relating to the political, moral, or natural history of Louisiana, but little aid has been received from foreign sources. Few works have been written on the subject that contain extensive information, and the number still more rare whose delineations are accurate.

Many works have been written upon Louisiana, containing but little matter that can either

instruct or amuse. One, however, possesses both those requisites in an eminent degree. Mr. Brackenridge wrote from personal observation, unshackled by pre-conceived opinions in religion, politics, national distinctions, or physics:— This enlightened young man described men as he found them, represented objects without distortion, and as far as his descriptions extend, may be considered correct, chaste, and natural. If Mr. Brackenridge had accompanied his work with a map correctly drawn from actual admea- surement and observation, he would have left but little for his successors to execute, in giving to the literary world a clear, comprehensive, and finished picture of Louisiana.

Lafon's Map, published in 1805, considering the then state of geographical knowledge respecting Louisiana, possesses much real merit.

Major Stoddard's work is valuable as a collection of facts, but it is too voluminous for extensive utility.

The utmost confidence can be placed on the accuracy of the information given by general Pike, as far as founded on his personal observation.

But little knowledge of Louisiana can be gained from the perusal of works published in Europe. From national prejudice and want of accurate material, transatlantic writers, when treating on any part of America, almost uniformly mislead rather than instruct. From the former censure Count Vergennes must be ex-

cepted. This enlightened and liberal statesman, in his memorial presented to the French government in the early part of the American revolution, does ample justice to the American character; but in local knowledge, though more correct than most European authors on that subject, yet evinces a very limited knowledge of the positions and relative importance of places.

Most persons who have visited the banks of the Mississippi, had objects very different from an inquiry into the geography of the country, or the moral situation of the inhabitants.

Extensive as is the range of his work, the author has visited the most important parts; he has examined the rivers, soil, and productions; carefully noted the manners of the inhabitants, in his excursions through the valley of the Mississippi; and, in a residence of sixteen years, has felt all the changes of the climate; has beheld the separation of a people from a despotic government; their incorporation into a government of law and reason; and has seen demonstrated how deserving those people are of all the benefits resulting from rational legislation.

The fruits of his labour he now presents to the public, without attempting apology, or invoking indulgence: the work, like all others, must rest on its intrinsic merit and usefulness, and can gain nothing by the most powerful personal recommendation.

History presents rather the accidents that vary the existence, than the progress of man in knowledge, industry, and happiness.

Revolutions that shake to ruin ancient, or create new empires, are beheld with attention. The narration which recounts the storm of battle is read with avidity ; but the slow, silent, and steady progress of nations, from their infancy to power and civilization, passes unheeded.

No subject can be more interesting than the juvenile struggles of a rising colony : its history is the recital of the gradations from weakness, ignorance, and want, to power, science, and abundance. No instance has yet occurred of a colony experiencing such singular vicissitudes of fortune, and whose change of sovereigns has been so frequent, in an equal period, as Louisiana. The germ of the population was Frenchmen of the reign of Louis XIV.; consequently many individuals, eminent for their talents, virtues, and scientific acquirements, composed part of the original establishment, and whose genius contributed to give many features to the character of the people, which their posterity now preserve.

Presenting what, from experience, he has found characteristic of both the people and climate, the author is aware of the prejudices he has to combat, the misrepresentations he has to contradict, and the difficulties he must have to encounter, in the attempt to introduce more liberal opinions respecting an important section

of the domain of the United States, and of a respectable body of his fellow-citizens.

In an inquiry into the influence of the climate upon the health of its inhabitants, he has passed by a natural transition, to its effects upon the mental and moral faculties of those born within the sphere of its influence.

This section he has performed with feelings of pleasure; and the people of the United States will receive with satisfaction a detail that, when admitted as correct, must lessen the prejudices that accident and design have engendered, to widen the distance between them and their fellow-citizens in Louisiana.

He has felt it a duty as a man, and claims the privilege as an author, to tear away the veil that ignorance or wilful misrepresentation has placed between men, united not only by the mutual weaknesses and wants of their nature, but by the bonds of political assimilation.

Like all other European colonies in America, Louisiana was composed from all the various elements that formed the parent stock: adventurers from all ranks of society, many indigent, and some criminal individuals, entered into the mixture from which arose the present population.

Removed to distances the most remote from their native place, men may for a time retain many of their established customs; but local position so powerfully influences human action,

that habits are acquired which give a distinct feature to society in all places. Something more than a century has elapsed since the colony began to be peopled from Europe ; many opinions, the offspring of national or family pride, have been discarded, and replaced by others, better suited to the new position in which the posterity of the first settlers are placed.

As the valley of the Mississippi will be for ages the receptacle of emigrants from the eastern slope of that chain of mountains which divides our territories, a developement of its resources, so favourable to agriculture and commerce, must claim no little part of our attention.

The comparative extent of surface will, at this time, if carefully examined, enable the least discerning to trace the future migrations of wealth and power, and determine, as far as human foresight can penetrate, the destiny of the United States.

Without pursuing any very systematic arrangement, are described the varied features of nature, the animal, vegetable, and mineral productions, as each object presented itself in succession : the author has endeavoured to form a faithful, if a rude, draft of an extent of the earth hitherto little known.

In the execution of his task there is but one part on which he dares to boast. He has invariably pursued, as far as his judgment and means permitted, a scrupulous adherence to truth ; in

narration and description, he has presented, to the extent of his power, things as they really are.

A period of near eleven years has now elapsed since this work was first undertaken. Most of that time has been employed in the collection of materials. The moment of its introduction to the public has now arrived ; and stands with all its errors, defects, and excellencies, (if it possesses any,) exposed to censure, or entitled to applause.

PREFACE TO THE SECOND EDITION.

SINCE the first publication of this work, much useful matter has been collected by the author. Important additions have been made to the Map, and some errors have been expunged.

The political relations of part of the country represented, have changed within the current year. The western part of the late Mississippi Territory has become a State, and the eastern has been created a Territory, by the name of Alabama.

In the work as first published, only the region included in the State of Louisiana, was detailed in the Statistics. A review is now taken of the countries included in the State of Mississippi and Alabama Territory. The reader can now, with the aid of the Map, extend his inquiries to the State of Mississippi and Alabama Territory, as well as Louisiana.

A stream of emigration is daily pouring into the country adjacent to, and included in the Delta of the Mississippi, that is every moment giving strength to the political and moral associations that have and will arise in those invaluable countries.

The salutary effect of the accession of Louisiana to the United States, is developing by every event in which the country itself is concerned; and demonstrated by effects that are

apparently extraneous. It would be useless, however, to dwell upon inductions obvious to every mind. It is sufficient to observe, that the machinations of foreign states have been deprived of a secure position upon which to operate; whilst the industrious citizens of the United States have opened to their enterprise an almost unlimited field. Rivers whose sources and efflux to the sea are in different and distant climes, now traverse in their long courses portions of the same sovereignty. One system of laws, one rule of human conduct, similar moral precepts; and what is, perhaps, to human happiness of equal, if not more consequence, one language will be spoken from the Atlantic to the Pacific ocean, from the Canadian lakes to the Mexican Gulph.

WILLIAM DARBY.

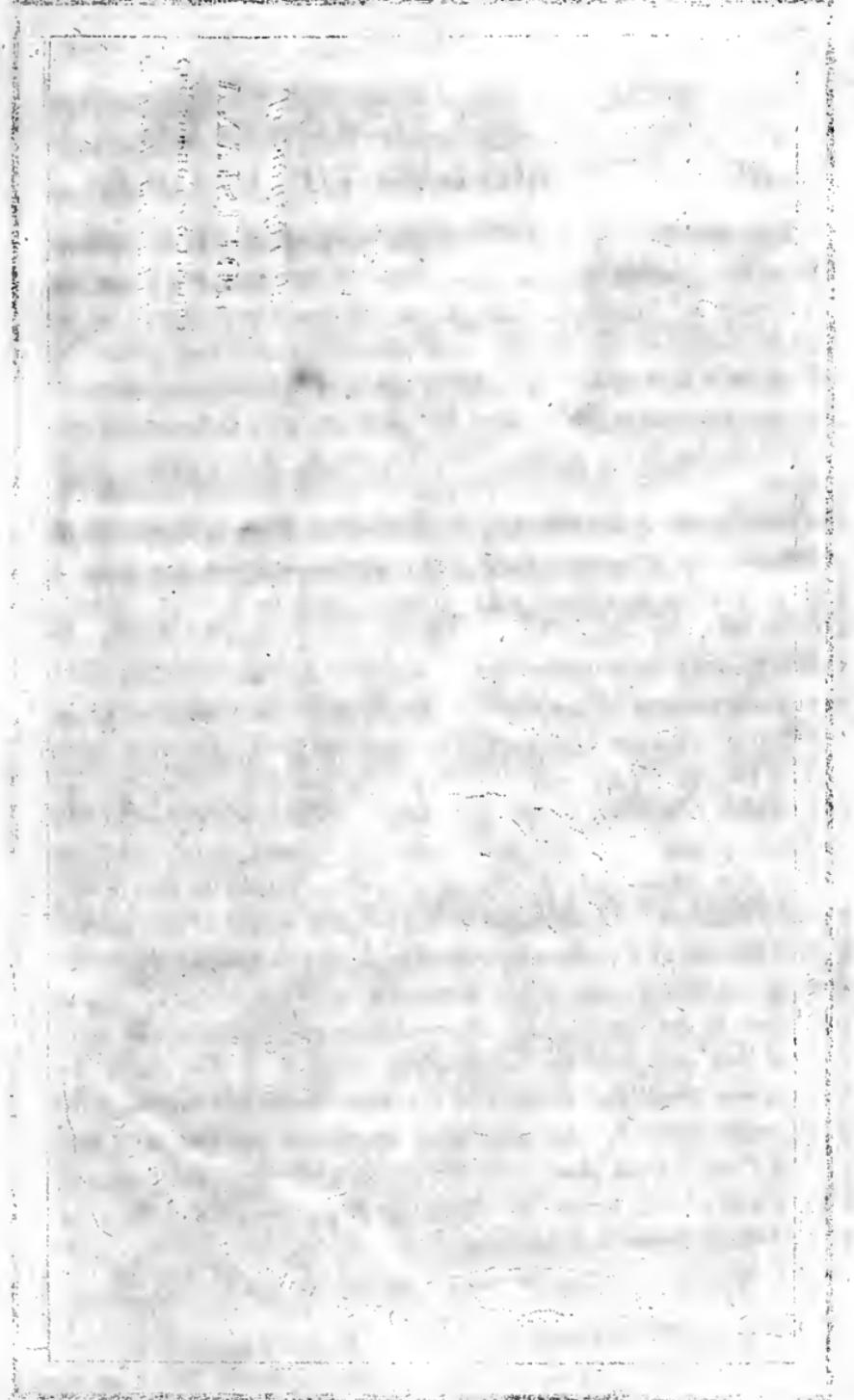
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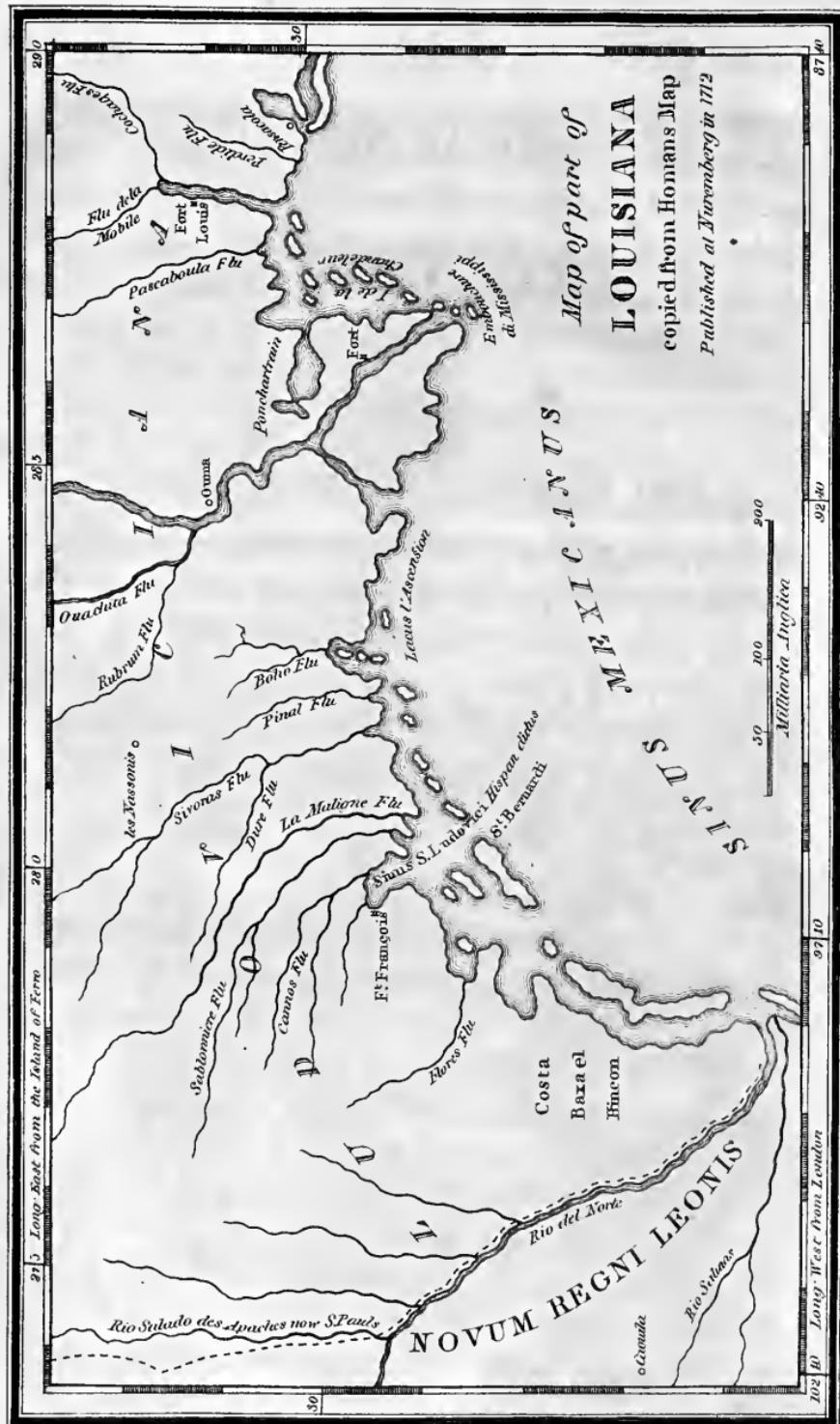
ADVERTISEMENT TO THE READER.

THE introductory chapter contains nothing more than a collection of the leading facts that occurred in the first discovery and settlement of Louisiana. So much sameness must exist in the maugre events of all colonial establishments, that a lengthened detail of their history must present a series of disgusting repetition.

From the final establishment of Louisiana until its cession to the United States, there occurred but few events of importance in its history. The cession from France to Spain, left the province in the same state of dependance as formerly. During the long and imbecile reign of Louis XV. in which France lost her North American colonies, Louisiana only demonstrated in a more striking manner than any other of her foreign possessions, how far France had then departed from true national policy. In fact, that Louisiana is now an integral of the United States, may be classed amongst the few instances where substantial good has arisen from the madness of courts. To a respectable people has been given the inappreciable advantage of self-government; and a widely extended space is opened to science, and human happiness.

The exposition of the data upon which our claims to that country are founded is extraneous to the original intent of this work; but whilst the first edition was in the press, the Spanish ambassador set up the claims of his sovereign to West Florida. I first published in the Aurora, and afterwards as an appendix, the matter that now composes the introductory chapter. The first publication was crude and undigested; a more connected form is now given to the subject. As nothing is presented but the most important facts, I trust there are few readers who will not comprehend clearly, and remember distinctly the principles of the title of the United States to Louisiana.





STATISTICAL DESCRIPTION

OF

LOUISIANA.

CHAP. I.

FIRST DISCOVERY, SETTLEMENT, AND LIMITS.

I HAVE sought in vain for French or Spanish maps of Florida and Louisiana published in the beginning of the 18th century, though I have been informed there are such; but I have been more fortunate with those of England and Germany. I have procured two maps, one published in London, 1719, dedicated to William Law, Esq. of Laureston; having Louisiana as the centre, but reaching westward from Chesapeake Bay 33 degrees of longitude, and having the Rio Grand del Norte included in its western limit.

The other map was published by Homann, at Nuremberg in Germany, before the above period, or about 1712, and bears the title of “*Regni Mexicani, Novæ Hispaniæ, Ludovicianæ, N. Angliæ, Caroliniæ, Virginiam, et Pennsylvania, sed non Insularum Archipelagi Mexicani, in America, Septentrionali, accurata tabula, exhibita a Joh. Baptista Homano, Noribergæ*”

I have seen another map by Homann of Nuremberg, which is entitled “*Amplissimæ Regiones Mississippi, seu Provinciæ, Ludovicianæ, a R. P. Hennepin, Fran. Miss. anno 1687; edita p. J. B. Homann, Geograph Noribergæ.*” This map agrees with that above cited; it is coloured, and the routes of La Salle are very perspicuously traced, as well as of M. Cavalier, in 1687.

The routes of Soto in 1543, and his successor in 1552, are given in a very curious and distinct manner.

In a geographical work published in London, in 1717, with the title of "Atlas Geographicus; or a complete System of Geography ancient and modern," Page 670, vol. V. is a map of Louisiana, upon which the outline of that colony is marked as in the above cited maps of Homann and others; a copy of the latter work is No. 470 in the Philadelphia Library.

On both these maps the coasts, rivers, mountains, and other grand features of nature, in those parts of North America, are embraced, and drawn with astonishing correctness for the period of their publication. In the regions west of the Mississippi, but little additional accurate knowledge, and no precision, have been gained up to this time; no map extant has met my observation, in which the now Missouri territory and the province of Texas are more accurately defined.

In the London map, the bounds of Louisiana commences west at the mouth of Rio Grande del Norte, ascends that river to the mouth of the Rio Salado de Apaches, (now St. Paul's) thence along that river to its source; thence by a curve to the 37° N. lat. where the limit meets the margin of the map.

On the east side, Carolina, Georgia, and part of Virginia, Maryland, and Pennsylvania, are included. On the north, the boundary is left undefined.

The Nuremberg map commences Louisiana at the mouth of the Rio Grande del Norte, ascends that river to the mouth of St. Paul's river; thence by a line nearly north, until it reaches 38° north latitude; thence east through the now territories of Missouri and Illinois, and the states of Indiana, Ohio, Kentucky, and Virginia, to the sources of James river, thence nearly

similar to the London map, until the limit merges into the Atlantic Ocean.

These two maps show that the bounds of Louisiana were at the epocha of their publication considered by the literati of Europe, as reaching to the Rio Grande del Norte. In both, the fort built by M. de la Salle is laid down at the head of the bay of Espiritu Santo, or St. Joseph, and on the west side of the mouth of the Guadaloupe or St. Marks, on the spot now called Matagorda.

With the general contour of the coast of the Mexican Gulph, these maps have great resemblance to each other, though differing considerably in latitude and longitude of places.

A British official map, published in 1755, in two parts, by Bowen, intended to point out the boundaries of the British, Spanish, and French colonies in North America, fixes the south-west limit of Louisiana at the same place as Homann.

No. 1040, in the Philadelphia Library, is a copy of Joutel's relation of La Salle's last voyage, printed in Paris, 1713. This book is a very valuable document in relation to Louisiana.

The small map attending this work is an exact copy of part of Homann's Latin maps, which appear to be the originals from which the others have been drawn. I have not even translated the names, considering it would be more satisfactory to the public to preserve the literal form as near as possible.

FERDINAND DE SOTO, in 1539-40, was no doubt the first European who actually traversed the regions near the mouth of the Mississippi; whose adventures have been preserved in literature.—So extravagant, however, were the then projects of Spanish travellers in

pursuit of the precious metals, and so little qualified to collect useful knowledge, that very few precise ideas of the countries through which they roamed, can be collected from their accounts. We may, therefore, conclude of the voyage of Soto, like many others, that he traversed, but did not discover the countries over which he travelled.

After the voyage of Soto, 132 years elapsed before further knowledge of Louisiana was obtained by any European nation. In 1674, two French traders, Joliet and Marquette, reached the Mississippi by penetrating from Canada through lakes Huron and Michigan, and through the Fox and Ouisconsin rivers.

1683.—M. de la Salle, Father Lewis Hennepin, and the chevalier Tonty, discovered the country now called Louisiana; and the course of the Mississippi. These adventurers reached that river by the Illinois. M. de la Salle explored the river to the mouth—Hennepin surveyed it upwards above St. Anthony's Falls—went soon after to France, published an account of his discoveries, and named the country LOUISIANA.

1683.—De la Salle returned to Canada, and from thence to France; gained by the interest of the prince of Conti, and the marquis de Seignelai. (son of the great Colbert,) a small squadron, with which—

1685, February 16th—He landed at the mouth of the Guadaloupe river, on the bay of Espiritu Santo, and built a fort. The object of his expedition was, and he set out carrying orders, to establish a colony on the Mississippi. From the very defective knowledge then gained of the northern part of the Mexican gulph, La Salle passed the mouth of the Mississippi; and, entering a deep and wide bay, he landed his men and effects, thinking himself on the Mississippi; but soon

found his fatal error. An establishment was made, and a fort built. The country was taken possession of in the name of the king of France, with the formalities usual on such occasions, practised by European nations in their American conquests.

1687, March 19th.—La Salle was murdered by two of his own men, on, it is supposed, the now Colorado river. Thus perished one of the most active, enterprising, and illustrious discoverers, that ever traversed the wilds of the new world. It is to be hoped that the government of the United States will never suffer any momentary policy to induce it to abandon the claim, to a soil rendered sacred by the manes of De la Salle*.

* It is impossible to read, without a sentiment of deep regret, Joutel's relation of La Salle's last voyage. The industry, intelligence, perseverance, and bravery, with which this generous man prosecuted his plans, and the occurrence of a single accident which rendered abortive so much toil and patience, must excite the sympathy of every heart that can feel for virtue and misfortune. Had La Salle succeeded in entering the Mississippi, his undertaking would in all human probability have been crowned with the most complete success.

I have been at some pains to ascertain the part of the coast of the gulph of Mexico, reached by La Salle's squadron, and am fully of opinion it was between the Vermilion and Mermentau rivers. Joutel minutely states that the shore exhibited white shining banks of sand, was low and extremely uniform. This description, and the certainty that the squadron was west of Mississippi, have been conclusive evidence to my mind of the place.

M. de la Salle himself judged correctly that he was west of the mouth of the Mississippi, but his pilot was of a different opinion, and unfortunately the latter prevailed, and the squadron continued westward. It may excite some surprise on viewing a map of this coast, that the Calcasieu, Sabine, and Trinity rivers, with the Bay of Galvezton, and the Pass of Aranjuex, could be passed unperceived; but to any person who has actually visited the country, such surprise will vanish. The extreme sameness and depression of the

Shortly after the death of La Salle, and the retreat of his brother, the residue of the colony was captured by a Spanish detachment sent from New Leon for that purpose, and the settlement broken up. Twelve years again elapsed before another attempt was made by the French government to take possession of the regions contiguous to the Mississippi. At length, in 1698, a squadron was sent out to the Gulph of Mexico, commanded by d'Iberville, and his brother Bienville. The choice of the latter officer was fortunate; to his genius, talents, and conciliating manners, France stood indebted for the success that crowned an expedition with very inadequate means.

shore, shallowness of the sea, and the narrowness of the inlets, will always render this region a very difficult one to navigate, even by those acquainted with its harbours

From the position of the Pass of Cavallo, it was the first great entrance that offered itself to La Salle's fleet; and the aspect of the country adjacent to the Bay of St. Joseph, bears a great resemblance to the Estuary of a large river. Few men are endowed with all the necessary qualifications to conduct the establishment of a Colony. La Salle appears to have had but one defect; a stiffness that rendered him unsocial, and disagreeable to his officers.—This was perhaps the true cause of his failure. After landing however at the mouth of the Guadaloupe, the desertion of the commander of the Royal vessel that convoyed him, the wreck of one of his own ships, and the discovery of his error, his fortitude did not forsake him, and he would have perhaps finally effected the object of his undertaking, had he not fallen by the hands of a base assassin.

It will be satisfactory to know that his murderers were promptly punished, and that M. Cavalier his brother, Joutel and Father Anastasius, with some others, escaped, and finally reached the French settlements, on the Arkansau River.

Father Anastasius, and Joutel, have both published accounts of this expedition, the latter is much the most circumstantial, and satisfactory. Joutel relates that he was within a few paces from

the king, my master, is, to maintain a good understanding with the French of Louisiana ; my own inclinations lead me equally to afford them all the services that depend upon me. But I am compelled to say, that your arrival at the Nassonite village surprises me very much. Your governor could not be ignorant that the post you occupy belongs to my government, and that all the lands west of the Nassonites depend upon New Mexico. I counsel you to give advice of this to M. Bienville, or you will force me to oblige you to abandon lands that the French have no right to occupy.

“I have the honor to be, Sir,

“DELACORNE.

“*Trinity River, May 20th, 1719.*”

To this letter, the following reply was sent :

“MONSIEUR—The order from his Catholic majesty to maintain a good understanding with the French of Louisiana, and the kind intentions you have yourself expressed towards them, accord but little with your proceedings. Permit me to inform you, that M. de Bienville is perfectly informed of the limits of his government, and is very certain that the post of Nassonite depends not upon the dominions of his Catholic majesty. He knows also that the province of Lastekas, of which you say you are governor, is a part of Louisiana. M. de la Salle took possession in 1685, in the name of his most Christian majesty ; and since the above epoch, possession has been renewed from time to time.

“Respecting the post of Nassonite, I cannot comprehend by what right you pretend that it forms a part of New Mexico. I beg leave to represent to you, that Don Antoine du Miroir, who discovered New Mexico in 1683, never penetrated east of that province or the Rio Bravo. It was the French who first made allian-

ees with the savage tribes in this region ; and it is natural to conclude, that a river that flows into the Mississippi, and the lands it waters, belongs to the king my master.

“If you will do me the pleasure to come into this quarter, I will convince you I hold a post I know how to defend.

“I have the honour to be, Sir,

“DE LA HARPE.

Nassonite, July 8th, 1719.”

In the course of 1720, M. de la Harpe visited the waters of the Ouachitta, Arkansaw, and Red river, considerably to the west and north of Nassonite, and in January, 1720, returned to New Orleans.

On the 10th of August, 1721, M. de la Harpe received the following

ORDER.

We, John Baptiste de Bienville, chevalier of the military order of St. Louis, and commandant general for the king, in the province of Louisiana :

It is hereby decreed, that M. de la Harpe, commandant of the Bay of St. Bernard, shall embark in the packet the Subtile, commanded by Beranger, with a detachment of 20 soldiers under M. de Belile, and shall proceed forthwith to the Bay of St. Bernard, belonging to this province, and take possession in the name of the king, and the West Company shall plant the arms of the king in the ground, and build a fort upon whatever spot appears most advantageous for the defence of the place.

If the Spaniards or any other nation have taken possession, M. de la Harpe will signify to them that they have no right to the country, it being known that pos-

session was taken in 1685 by M. de la Salle, in the name of the king of France, &c.

BIENVILLE.

In October following, M. de la Harpe returned to New-Orleans, and reported that in pursuance of his orders, he had coasted 100 leagues west of the Mississippi, and on August 27th had entered a fine bay, with 11 feet water at half tide; that his weak force, and the hostility of the savages, prevented him from forming any permanent establishment. That the bay, known to the French as St. Bernard, was the same designated by the Spaniards as del Espiritu Santo*.

From the vague manner with which his latitude and longitude are laid down, we are under some difficulty in locating the bay into which M. de la Harpe entered; but from his verbal description of the rivers that entered its inland extremity, it must be the bay now called "Galvezton bay," into which the Trinity disengages its waters, lying in lat. $29^{\circ} 30'$, and 95° west long. from Greenwich, and 18° west from Washington city.

M. de la Harpe concludes his report in these words:

The extent of Louisiana from west to east, is from the bay discovered in August 1721, by M. de la Harpe, lat. $29^{\circ} 12'$, long. 282 east from Ferro, (95° west from

* Great confusion has always prevailed in the names of places along this part of the coast of the Mexican Gulph, between Sabine and the Rio Grande del Norte rivers. Beside many other rivers, three large bays indent the country. The names of these bays have been very frequently confounded. They are laid down, from my information upon Melish's map, in the following order, proceeding from East to West: Galvezton, St. Bernard, St. Joseph, or del Espiritu Santo. St. Bernard, as commonly understood, is rather a general term for the coast, between the Sabine and pass of Cavallo, than the name of a particular bay.

Greenwich,) to the Perdido, between Mobile and Pensacola, having above one hundred and sixty marine leagues of coast.

Thus remains the question of the limits of this great country until this moment. From the facts stated, it will appear demonstrative that to a distance far west of any place the United States have yet occupied, that the claims of France, by prior possession, was decisively established, at a very early period after the first discovery of the country. How far policy will influence the government of the United States, in establishing the extent of the right it has acquired from France, remains unexplained; but we may be justifiable in asserting, that whoever possesses the two fine bays of Espiritu Santo and St. Bernard, has completely the commerce of the Spanish internal provinces in their hands.

The rivers that enter the Gulph of Mexico, west of the Mississippi, are the Fourche, Atchafalaya, Vermillon, MermenTau, Calcasieu, and Sabine, in the state of Louisiana; the Trinity, Brasos a Dios, Colorado, and the united streams of the Guadaloupe and the St. Marco, in the province of Texas. These streams head on the inclined plane between Red river, Rio del Norte, and the Gulph of Mexico. Many of them are considerable for their length and quantity of water, and all are important as means of uniting distant and valuable portions of this continent.

The point of separation between the Spanish dominions and those of the United States upon the Pacific Ocean, though not so easily determined as upon the Gulph of Mexico, yet there exists sufficient data to enable the geographer to mark, with considerable precision, the point that principles of equity would determine as the dividing limit between the two nations.

The Spaniards have long since formed a permanent establishment, on the south side of the bay of St. Francisco, N. lat. $37^{\circ} 42'$ west long. 132° from London. Thus far Spain has decided, undisputed, and real possession on the north-west coast of North America.

The title of the United States to the countries upon the middle waters of Columbia river, cannot be contested, by either Spain or Great Britain, consistent with the principles upon which all European claims have been, in the first instance, established in America.

The distance from the mouth of the Columbia river to St. Francisco, is about six hundred miles. If we may be permitted to infer, that the title of the United States to the country near the mouth of the Columbia river, and that of Spain to St. Francisco, cannot in justice be contested; then some intermediate point must become the determinate limit. If the respective claims are equal to the two extremes assumed, and if the two nations have similar rights to the intervening region, it follows, that mid-distance would certainly be the most suitable boundary, upon rules of public law and principles of sound policy.

Upon this maxim, drawn from common sense, and long assented to, do the United States now correctly claim the Perdido, as the east boundary of Louisiana. It was a submission to the principle, that prior occupancy decided the right of soil, that induced M. de Bienville to leave the Spanish force in undisturbed possession of Pensacola. It was a conformity to the justice and policy of this rule, that influenced the conduct of both France and Spain, first tacitly, and afterwards positively, to consider the Perdido river as the limit between Louisiana and Florida.

The same equity and good sense can easily mark

out the point of separation between the domain of the two nations on the Pacific Ocean.

When we reflect upon the rapid approach towards each other of the two masses of civilized men that inhabit this continent, we cannot call this essay upon their line of demarkation an idle speculation. The day is advancing with rapidity, when this great frontier will cease to be inhabited by savages; when either the deductions of reason, or the point of the bayonet, must trace the line that divides two great empires.

I have presented to the American reader the evidence of the first discovery and occupancy of Louisiana, as well as the public-received opinion amongst civilized nations of its extent. From the statement of the facts upon which this evidence is founded, it results, that all the distance between the mouths of the Rio Grande del Norte, and the Perdido rivers, and far inland, was first discovered and settled by France: that the scattering Spanish presidios in Texas were made after 1714, and consequently could not impair the claim that France had to countries she had explored and colonized long before the Spanish settlements were formed.

Upon rules of policy, the United States ought to enforce its title to Louisiana, in the most extensive scale upon which justice will sanction the claim. The province of Texas is now a wilderness, with but partial exceptions. In the first half of the current century, this region will be inhabited by either emigrants from the United States, or the Spanish colonies. The interior towards Red river is barren, but the parts adjacent to the Gulph of Mexico, have characteristics in common with Attacapas and Opelousas, and will yield the same staples.

With the Rio Grande del Norte, ought the south-western emigration of the people of the United States to find an eternal *ne plus ultra*; and in all probability this river will become a line of demarkation between two great portions of mankind.

A

GEOGRAPHICAL DESCRIPTION

OF

LOUISIANA.

CHAP. II.

EXTENT, LIMITS, NATURAL AND POLITICAL DIVISIONS, CLIMATE, GENERAL DIVISIONS OF SOIL, AND VEGETABLE PRODUCTIONS.

LOUISIANA, as ceded by France to the United States, is bounded south by the Gulph of Mexico; east by the Mississippi and Perdido rivers; north, by the State of Mississippi, and an imaginary line, nearly coinciding with the northernmost part of the 49th degree of north latitude; west, by the Chippewan mountains*; and southwest, by the Spanish internal provinces†. This great expanse has a frontier with the Spanish internal provinces of 1500 miles; along the Chippewan mountains of 500 miles; a frontier with the British dominions of 1300 miles; thence following the Mississippi from its source to the 31° of N. lat. by comparative course 1400

* In the first edition of this work, I designated this chain Missouri Mountains; but have since seen and read Dr. Drake's excellent work on Cincinnati, wherein they are called Chippewan. As this is the native Indian name, I have adopted it, as much more appropriate than an adjective name from one of the rivers which those mountains produces.

† The place where la Salle landed in 1683, ought to be by United States' writers considered as decisive of the S. W. limit of Louisiana.

miles ; thence along the line of 31° N. lat. to the head of the Perdido river, 240 miles ; thence along that river to its mouth, 40 miles ; and along the Gulph of Mexico 700 miles : having an outline of 5680, or 5700 miles, in round numbers, and 945,860 square miles of surface.

Louisiana is now divided into three sections :

The STATE OF LOUISIANA, bounded by the Gulph of Mexico on the south ; by the Sabine river and a meridian line from 32° to 33° N. lat. on the west ; by the territory of Missouri and the state of Mississippi, north ; and by the latter and Pearl river, east. The state contains 45,860 square miles of area, and is watered by the Mississippi, Red, Ouachita, Atchafalaya, and Pearl rivers, together with numerous other streams of lesser note.

The TERRITORY OF MISSOURI. This latter section, which was formerly denominated Upper Louisiana, is bounded, east by the Mississippi river ; south, by the 33° N. lat and the province of Texas ; and south-west by the Spanish internal provinces ; west, by the Pacific ocean ; and north, by the British dominions. It contains an area of 800,000 square miles.

PROVINCE OF TEXAS. That part of Louisiana, known by the name of the Province of Texas, which is claimed by Spain as part of the internal provinces, and included in the vast intendancy of San Louis Potosi, is bounded east by the state of Louisiana ; south, by the Gulph of Mexico ; west, by the Rio Grande del Norte, and north by Red River, containing an area exceeding 100,000 square miles.

Beside these three grand divisions of Louisiana, there is a small section of 7000 square miles, bounded west, by Pearl river ; east, by Perdido river ; north,

by the thirty-first degree of north latitude; and south, by the Gulph of Mexico. This section now forms part of the state of Mississippi and Alabama Territory.

This great expanse may be briefly described as occupying the western slope of the valley of the Mississippi, and the inclined plane, over whose surface flows the small rivers that disembogue themselves into the Gulph of Mexico, east of the Mississippi as far as the Perdido, and west of the Mississippi to the Guadalupe.

The Chippewan mountains, dividing the waters of the Mississippi from those of Columbia, form the principal chain in Louisiana; collateral ridges extend themselves from the parent chain, which, in the valley of the Mississippi, generally wind to the S. E. and give that direction to all the rivers that enter either the Missouri, Mississippi, or Mexican Gulph. The courses of the Missouri and Mississippi, are in a great measure conformable to this system. In the wide slope from the Rio Grande del Norte to the Missouri, nature has been more uniform than on any equal extent on this globe; the courses of all the rivers accommodate themselves to each other with a regularity that would seem the result of artificial arrangement; the spurs of the Taous*, though of little elevation, are regular, gradually sinking, until lost in the margin of the alluvial region of the Mississippi and gulph of Mexico. West of the main chain, other ridges run parallel, leaving long narrow vales between them: thus this great range of

* Taous is the name given by the Spanish colonists to the mountains, from which flow the Rio Grande, Red, and Arkansa rivers eastward, and the Colorado of the gulph of California, and most probably the Multnomah to the westward; they are a prolongation of the Chippewan.

mountains, throwing out ramifications on each side, which, with various inclinations to the parent spine, form the most prominent features in the physiognomy of Louisiana. It is very difficult to establish any systematic classification of the different features of Louisiana; the general division into alluvial and prairie, admits of so many exceptions, as to render its adoption rather the source of error than of distinct elucidation. Mountains being in all countries the most prominent and durable features in nature, and less capricious in their arrangement, afford the most accurate outline; mountains, when carefully examined, have been found to conform to each other with singular exactness, the main chains protruding their lateral embranchements like the spine and ribs of an animal.

We find Louisiana supported on the west border as if by a Buttress, by the great chain of mountains that give source to the Missouri and Columbia rivers*.

The ridges that intervene between the various streams on the east side of this chain, are branches running generally south-east, having a gradual depression towards the Mississippi.

On viewing a general map of North America, will instantly be seen an inclined plane, extending from the Mexican gulph to the head waters of the Missouri and

* This chain, the same with that of Anahuac, ought to receive some distinctive term to designate the principal spine in Louisiana. Snowy, rocky, sandy, and other attributes common to all mountains of any considerable elevation, ought to be rejected as improper terms, when used as descriptive appellations. Without having the presumption to attempt the introduction of a name in geography, we will, to express our meaning without circumlocution, give this chain the name of the Chippewan mountains. Adopting this method of discrimination, by a general term, much confusion will be avoided.

Saskashawin rivers: this great slope, composes that division of Louisiana that may with accuracy be called North western, and by far the greater part of the entire surface. The rivers south-west of Red river, having the same inclination, evidently owe their origin and course to similar causes with the Red, Arkansa, and other rivers that enter the Mississippi and Missouri from the north-west, and may, without violence, be included in the same system.

The division into prairie and alluvion, though justly rejected when treating of all Louisiana, may be adopted with strict propriety when applied to the North-west section. Lands formed by alluvion are inferior in extent to prairie, but much more valuable, and are confined to narrow borders along the margin of rivers. Naked themselves of timber, and having but scanty herbage, the Chippewan mountains protrude immense tracts entirely devoid of wood. Those natural meadows are broken by strips of timber land, skirting the streams, but more than four-fifths of the entire surface is prairie, giving a distinct character to the area between the Mississippi bottoms, and the summit of the Chippewan mountains. With more fertility, those plains have a striking resemblance to the desert Steppes of Asia*, north of the Caspian and Aral seas. The northern parts, watered by the Missouri, are more productive than the southern, lying contiguous to the

* The great similarity of the North American continent to Asia and Europe, and its difference from Africa, is in nothing more striking than in the production of common salt, (Muriate of Soda,) which abounds in all the extent from Ouachitta in the state of Louisiana, to the Pacific ocean. (The interior of Africa seems, in many places, singularly void of salt.) *Mungo Park, Horneman, Brown, Bruce.*

gulph of Mexico ; but every where seem to repulse agricultural, and invite to pastoral life.

This tract is now the residence of innumerable herds of buffaloe, deer, and two or three species of those mixed animals which seem to occupy the space between deer and sheep*. Though but imperfectly known, two very distinct species are ascertained, one with long curvated horns like the common goat, another with spiral horns resembling the domestic ram. They range over the wide extent from the Arkansa to the Pacific, and from the Red river to the sources of the Missouri; wherever they are found, nature has been singularly avaricious of water. "At the foot of the mountains of California, the traveller finds only sand, or a rocky bed covered with *cactus cylindricus*, (a species of prickly pear,) at a very great elevation. Very few springs of water are found, and by a great fatality it is remarked, that where fresh water is found, the rocks are naked, whilst there is but little water where the rock is covered with vegetable earth†."

This frightful picture designates the whole region, from the limits of the state of Louisiana to the Rio Gila, and to the eastern slope of the Californian mountains, skirting within a short distance of the shores of the Pacific ocean: some fertile, well watered tracts exist, but they are bright spots upon an extended and arid waste.

* From the carelessness and predilection of European writers and travellers, almost all animals indigenous to America, have received names from the nomenclature of the eastern continent, whilst in fact scarce any animals of the old continent have characters in common with those of the new.

† Humboldt's Essay on New Spain.

How far man is influenced in his moral habits by his physical situation, receives a new demonstration from the manners of the wandering tribes that range over the foregoing expanse. Following the herds of buffaloe who change their pasture with the seasons, the Hietans, similar to the Nomadic tribes of Tartars and Arabs, have no settled residence. Encamped where they find water and their prey, they remain until dearth exhausts water and dries up the herbage, and drives the buffaloe to another haunt. With the exception of their not having domesticated the ruminant animals upon whose flesh they exist, these savages lead a life of great similarity to that of the primitive pastoral nations of the old continent.

The Hietans have domesticated the horse, and now equal the most civilized people in their management, agility in mounting, and applying the force and strength of that noble animal, either in chase or war.

They are, as far as correct information has been received, the only people, aborigines of this continent, who have been gallant enough to attempt, and sufficiently skilful to withstand the shock of cavalry, instructed on the principles of European tactics*.

Free as the plains over which they rove are expansive, those tribes possess the extent of an empire; an extent which, from many causes, seems doomed never to contain a numerous civilized population upon its surface. Should great cities ever exist upon this tract, they must, like Palmyra, draw their grandeur from commercial revolution, and by other changes in human affairs sink to ruin.

One characteristic of the North American desert, however, countervails many of its asperities—the ex-

* General Pike.

treme purity of the atmosphere. Perhaps no part of the earth can be more favourable to human existence as far as the air is concerned in the preservation of animal life. Open to every wind that blows, this great grassy expanse is purged from impurity, and gives a force and vigour, both bodily and mental, to the natives that repay them in a great measure for their other deprivations.*

“ The Mexican troops of the Presidios, are exposed to continual fatigues. The soldiers that compose them are all natives of the northern part of Mexico. They are mountaineers, of high forms, extremely robust, accustomed to the frosts of winter, and to the ardour of the sun in summer. Constantly under arms, they pass their lives on horseback. They often march eight or ten days over those desert steppes, without carrying with them other food, except the flour of Indian corn, which they mix with water, as they meet a spring or pond on their road. Well informed officers assert, that it would be difficult to find in Europe a troop more

* It would seem from a review of human history, that the more jealous any nation may be of its individual freedom, the more prone it is to enslave others. This dominant principle is carried by savages to the utmost extent in their power. The Hietans have reduced their women to the most abject and degrading slavery. The hardships imposed by those warlike hunters upon the softer sex, are severe and irremoveable. The distance of rank and consideration between an American slave holder in our southern states, and his slaves, are not greater than between an Hietan and his wife. Every degrading office that is performed in our southern states by the black, fall with equal contumely amongst the Hietans, to the lot of the wretched female. In savage nations woman is a slave ; in barbarous nations a prisoner. It is only in the civilized state of human society, that as a mother she is our nurse, our early friend and preceptress, and as a sister or wife, an endearing companion.

light and active in their movements, or more impetuous in their charge*."

Nature has every where solaced man by some striking benefaction for the hardships of his existence. Health is the first and best of her gifts. With this heavenly treasure even poverty becomes innocuous, though so frightful where disease sharpens its horrors.

Health and liberty exalt and enoble man; without them he is the most dejected and abject being that inhabits this globe. Bounding over the plains of Red River, Rio del Norte, or Colorado, inhaling the invigorating salubrity of the air in which he lives, breathing the rich aroma of his native plants, the man of the interior regions of this continent, enjoys what nature gives him, without avarice or ambition; subject to all the rigours and vicissitudes of savage life, he is exempt from pains and penalties imposed by artificial wants.

Turning our eye towards the Mississippi, another region presents itself. Every object now changes its appearance. The mountain gradually sinks into plains, the dry and arid prairie is superseded by the deep recesses of the annually overflowed banks of the great monarch of North American rivers, and his numerous tributaries. Vegetation now assumes a more vigorous form; the trees of the forest more gigantic in their strength, and presenting to the eye an entirely different aspect. For the towering pine is substituted the umbellated cypress. The soil is more fertile, the face of nature more monotonous. Other animated beings present themselves. At every step the traveller is reminded that he has passed one of those physical limits

* Humboldt's Political Essay on New Spain, Paris edition, vol. V. page 57.

that separate the great families of organized existence. Changing seasons here produce different phenomena. Spring, that at the source of Red river clothes the earth in green, at its mouth covers it with a flood of water. Even the birds that skim the air are different; for the falcon is exchanged the gray eagle, and for the hawk the millions of migratory water-fowl, that perform their annual voyage between the Canadian lakes, and the shores of the Mexican gulph.

The Mississippi, flowing from north to south, enters the sea nearly on the same line of latitude with the Nile, the Blue river, and the Euphrates; with the latter river, the Mississippi has many strong points of resemblance; though in many respects very different.

The Nile, flowing from a southern to a northern region, and passing through countries so very dissimilar, has but little similitude to the Mississippi, except the embankments at the mouth, common to all rivers which derive their waters from a sandy or loose soil; and singular as it may be, the Nile, though so very unlike, is in conversation almost always brought in comparison with the Mississippi.

The Nile rises about lat. 12° north, and pursuing nearly a northern course, enters the Mediterranean sea above lat. 32° , winding through a comparative course of upwards of 1600 miles. Below Abyssinia, or about lat. 18° north, the Nile receives no tributary rivers of any consequence, and flowing in an uninterrupted stream through Nubia and Egypt, branches into a variety of outlets, and falls into the sea like the Mississippi at various points.

Along the west bank interminable wastes of sand extend themselves nearly the whole length of the Nile, and often within a very short distance of the river.

The Red Sea also stretches parallel to, and near the Nile, leaving an arid waste or strip between them. The isthmus of Suez, that bounds the delta of the Nile on the east, is a desert waste of sand.

The inland parts of Africa are but imperfectly known, but there is reason to believe that the Sahara, or desert, runs from the west of Egypt to the Atlantic ocean. The space between the mouth of the Nile and that of the Euphrates is generally a desert waste, and exhibits plains of sand.

To an unprejudiced observer, it will, from a geographical comparison appear, that near the Nile in every essential respect, the adjacent regions present a total contrast to those near the mouth of the Mississippi. What in Asia and Africa are unprolific wastes of sand, are in America plains covered with the most luxuriant herbage. The prairies of Opelousas and Attacapas, and the still more extensive savannahs to the west of the Mississippi, may be called the American Sahara. But how different the aspect of the American grassy plains, from the parched sands of Africa !

Could the extent between the mouth of the Ohio and that of the Mississippi, and about four hundred miles east and west of the latter river, be comprehended in one view, objects would present themselves in the following order. East of the river, and near its margin, would be seen a long strip of rich land, timbered with various species of oak, hickory, sweet gum, sassafras, poplar, and other trees indicative of a rich soil; the land would be seen broken into hills and dales, some of the vallies with clear excellent water during the whole of the year; others dry, except in time of rain. Along the margin of the river, between the bank and bluffs, a long line of small lakes would present them-

selves, except where interrupted by the protrusion of a river or the impending bluffs. Advancing east of this rich tract, a line of pine woods of irregular breadth would be seen between the Mississippi and Mobile, gradually sinking into the low lands of that river. The Mobile presents, above the bay, a nearly similar appearance to the Mississippi. The banks of the Mobile bay are generally high land, not subject to inundation. Turning the eye more westerly, and in the intermediate space between the Mississippi and Mobile, the Amite, Tick-fah, Tangipao, Pearl, and Pascagoula rivers, will be seen entering that chain of lakes that winds from the mouth of the Amite to the mouth of the Mobile. The swamps and high pine tracts are woven with inexplicable intricacy in this region, the view would be confused in the infinite interlocking lagoons that checker the mouths of every river; and the mind could not resist the conviction, that the lakes Maurepas, Pontchartrain, and the Rigolets, at the mouth of Pearl river, were once a prolongation of lake Borgne.

The next object to arrest the view would be the serpentine meanders of the Mississippi, whose banks, now variegated with farms, present the germ of what Louisiana is destined to become; and glancing more to the southwestward, another intermixture of bayous, lakes, woods, and morasses, would present their infinite variety, until the line of vision would be terminated by the gulph of Mexico. This extensive landscape would present every variety of soil, from the barren pine hills and flats, to the exuberantly rich alluvion of the numerous rivers that wind their streams over the immense canvass.

West of the Mississippi, and near the margin of that river, but little change would be seen; river uniting to

river in a thousand mazes ; deep forests of cotton wood, willow, elm, maple, and other trees indigenous to a soil of first quality, and admixed with the great cane and palmetto. In this labyrinth, the Atchafalaya, Red river, and Tensaw, would be the most conspicuous objects in the limits of Lower Louisiana ; beyond its limits the Arkansaw, St. Francis, and White rivers, would exhibit similar features. Continuing westward, a new and astonishing scene would open : the wide green plains of Attacapas and Opelousas, varied by the irregular chains of woods, narrow and indented, running along the rivers. Beyond those seas of grass, another forest would be seen commencing, which would at a great distance melt into the immense prairies towards the Panis villages.

The Red river, though on a small scale, would, like its great rival the Mississippi, present an inextricable network of lakes and bayous.

Beyond the Red river, another expanse of woods would be seen extending, leaving the river on the south, and widening northward, embracing all the intermediate space between Mississippi and Red river, and becoming imperceptibly less in quantity as the view would be swept to the north.

Out of this great forest the Ouachitta would be seen meandering until lost in the delta of the Mississippi. Beyond lat. $34^{\circ} 30'$ the earth would, for the first time in this vast range, be seen elevated into mountains. The Massernes, extending from west to east two hundred miles, may be considered the natural outline between Lower and Upper Louisiana. Beyond those rugged, though not very elevated mountains, those vast savannahs that occupy so much of our continent,

would be seen variegated and indented by the woods along the rivers; whilst the imagination would be lost in this extensive, and, as it were, shoreless ocean of grass.

This brief, but accurate survey, will show how little the country under review resembles that in the neighbourhood of the Nile. The air that breathes over a grassy plain must be charged with particles infinitely less destructive to animal life, than the scorching air of the African desert.

The extremely mild temperature of the climate of Lower Louisiana, and the cold which is much more severe than could be expected below lat. 33° , is a phenomenon that has not yet been satisfactorily accounted for. Vegetable productions are the only decisive marks of climate; these afford ample proof how much more temperate the climate of Lower Louisiana is, than that of similar latitudes on the eastern continent. The orange tree flourishes in Europe above 38° N. lat.* the sugar cane about the same height; neither of those have been yet cultivated with success in America, as high as 32° N. The cotton and other tender plants have frequently been killed by the frost late in April, and again in the latter days of September. The interval between frosts may be called the months of May, June, July, August, and September, though instances have occurred in Opelousas, of frost in the latter month. The heat in Fahrenheit's thermometer seldom amounts to 90° , and the medium temperature of well water is 52° of the same instrument.

* In the islands of Hicres, opposite Toulon, in lat. 43° , orange trees are cultivated in orchards for the blossoms, which are sold to the perfumers of Grasse.

This extraordinary coolness in a latitude which is so very warm on the eastern continent, it is difficult to account for on any known principle. It will be noted that these observations equally apply to all North America; but does that supersede the necessity of their insertion in this place? Many, though convinced that in Pennsylvania, and in other more northern states, the inhabitants experience the temperature found in Europe in latitude 50° N. yet believe the shores of the gulph of Mexico as warm as Morocco.

The fact of those boundless regions of open plains, which oppose so few obstacles to the north winds, and the non-existence of any very elevated chain of mountains, whose course is east and west, will open new fields to philosophical inquiry. Causes deserve an explication, that give within six degrees of the tropic of Cancer, a climate attempered to the medium of that found in Europe and western Asia, in lat. 40° north. If we except Olonetz and the Ural chains, and the Dofrine Alps, between Sweden and Norway, all the great ranges of the eastern continent run in lines not greatly inclined to east and west. The Pyrenees, the Alps, Carpathian mountains, and Haemus in southern Europe, the vast Caucasian, Altaian, and Thibetian chains in Asia, and the Atlas in Africa, are each strong elucidations of the assumed position. The mountains of America are remarkably the contrast of those in the east. The Andes, and the chain that divides the waters that flow south-eastward into the gulph of Mexico, or N. E. into Hudson's bay, from those that run westward into the Pacific ocean, and the Alleghany, all wind, (if we except the latter,) but little inclined to north and south. It will be seen, however, that the small inclination of the North American mountains, from a me-

ridian line, tends to confine the current of air towards the gulph of Mexico. The Alleghany and the Chipewian chains open upon each other at an angle of about 60° . This circumstance carries the wind as it were into the vortex of a funnel.

The above facts are stated as found in nature, without comment; the mind of the reader is left to form conclusions upon the data.

The south-western part, or the province of Texas, is perfectly similar to other parts of Louisiana, of the same relative position; having a range of low sea-coast, much of it marshy; with small islands enclosing bays of more or less extent; and the country imperceptibly rising to the northward, becomes broken, dry, and healthy.

Such are the great features of Louisiana; a country, that in the course of human events, is perhaps destined to be amongst the most remarkable upon which the happiness or misery of mankind have ever been, or will be felt. It is the most extensive, unbroken, continuous body of productive soil on the globe.

The climates, the surface, and the animal, vegetable, and mineral productions exhibit an endless variety.

The circumstance, however, that renders the political and moral picture of this country peculiarly distinctive, is, that almost the total of the production of the industry of its inhabitants, must flow to one common center. New-Orleans alone will be for ever, as it is now, the mighty mart of the merchandise brought from more than a thousand rivers. Unless prevented by some great accident in human affairs, this rapidly increasing city will, in no very distant time, leave the emporia of the Eastern world far behind. With Boston, New-York, Philadelphia, and Baltimore, on the left, Mexico on

the right, Havanna in front*, and the immense valley of the Mississippi in the rear; no such position for the accumulation and perpetuity of wealth and power ever existed.

* By careful and repeated admeasurement upon the best constructed maps, the Mississippi river and its tributary streams drain more than 1,400,000 square miles. If this expanse was peopled only equal to Connecticut, in 1810, or about 60 persons to each square mile, the aggregate would be 84,000,000. It cannot be rashness to assert, if the present order of things continues to operate, that, at a period not more than two centuries distant, more than 100,000,000 of human beings will send the surplus fruits of their labour to New-Orleans.

STATISTICS
OF
LOUISIANA.

CHAP. III.

STATE OF LOUISIANA ; NATURAL AND PAROCHIAL DIVISIONS.

THE state of Louisiana is naturally divided into three sections ;—The S. E., S. W. and N. W. The S. E. composed of the Parishes East of Atchafalaya, and south of the 31° N. lat. The S. W. section west of Atchafalaya and south of 31° N. lat. and the N. W. section west of the Mississippi and North of the 31° North latitude. This natural division is pursued in this work.

The legal division of the state of Louisiana into parishes is laid down upon the map. The counties and judicial and military districts are not delineated. So much confusion would have been superinduced by so many conflicting subdivisions, that it was judged more conducive to perspicuity, to place upon the map only the parochial lines, and to give the verbal description in the same manner.

The state of Louisiana is divided into twenty-five parishes, whose natural positions are ; six north of 31° N. lat. ; three south of 31° N. lat. and west of Atchafalaya river ; and sixteen east of Atchafalaya. Their respective extent in square miles, and population, in 1810, is exhibited by the following Table:

STATISTICAL TABLE of the extent of the Parishes of the State of Louisiana, and their Population, in 1810.

Parishes.	Sq. Miles.	Acres.	Arpents.	Population in 1810.
Plaquemines	1500	960,000	1,134,300	1549
Orleans	1300	832,000	983,060	24,552
St. Bernard	400	256,000	302,480	1020
St. Charles	300	192,000	226,860	3291
St. John Baptiste	150	96,000	113,430	2990
St. James	170	108,800	128,554	3955
Ascension	350	224,000	264,670	2219
Assumption	500	320,000	378,100	2472
Interior of La Fourche	2500	1,600,000	1,890,500	1995
Iberville	350	224,000	264,670	2679
West Baton Rouge	850	544,000	642,770	1463
Point Coupée	600	384,000	453,720	4539
New Feliciana	1050	672,000	794,010	
East Baton Rouge	500	320,000	378,000	
St. Helena	1300	332,000	983,060	
St. Tammany	2000	1,280,000	1,512,400	
St. Mary's and St. Martin's, Attacapas	5100	3,264,000	3,856,620	7369
St. Landre, Opelousas	7600	4,864,000	5,747,120	5048
Natchitoches	10,600	6,784,000	8,015,720	2870
Ouachitta	4000	2,560,000	3,024,800	1077
Rapides	2300	1,472,000	1,739,260	2300
Ocatahoola	2000	1,280,000	1,512,400	1164
Concordia	2100	1,344,000	1,588,020	2875
Avoyelles	700	448,000	529,340	1109
	48,220	30,860,800	36,463,964	86,556

The S. E. section lying upon the Mississippi, its connecting waters, and in West Florida, is as yet the most important from population and wealth; and will merit the first place in a statistical review.

Before entering upon a detail of its parochial divisions and productions, I have given a view of the Mississippi river, together with a general sketch of the country included in, and contiguous to, the Delta. The mere geographical features have been less attended to in this place, because every circumstance respecting the egress of the Mississippi will be more appropriate under the topographical survey of the coast of the gulph of Mexico.

This section is again divided by the Mississippi, Iberville and Amite rivers, by lakes Maurepas and Pontchartrain, and the pass of Rigolets, into two portions of land very dissimilar in their features and natural productions. The region lying upon the Mississippi and connecting streams may be considered as an immense plain, intersected by rivers and chequered with lakes, whilst the four parishes taken from West Florida, rises within a short distance from its southern border, into a hilly and broken country.

I have described each of these subdivisions under separate heads; no two parts of the state of Louisiana differ indeed more essentially, than do the banks of the Mississippi below Red river, and the pine hills of the Amite, Tangipao, and Pearl rivers.

Point Coupée island, enclosed between the Mississippi, Atchafalaya, and Plaquemine, contains, independent of the bank of the former, an extensive surface of excellent arable land. The settlement of the Fausse Riviere, or ancient bed of the Mississippi river, is about thirty miles long, and the land having the general character of the Mississippi banks needs no particular description.

The Gros Tête, a large bayou, has its source south of Fausse Riviere, and running nearly a south course thirty miles, falls into bayou Plaquemine. This bayou has much excellent land upon its margin, covered with large cane; but subject to casual inundation. Bayou Maringouin rises N. W. of Fausse Riviere, and winding round its western extremity, assumes a course nearly parallel to the Gros Tête, falls into Atchafalaya, below Cow island. The banks of the latter bayou are mostly above overflow, the soil like that of the Gros Tête.

Bayou Mourir leaves the Mississippi at the northern extremity of Point Coupée island, and falls into Atchafalaya, after a course of fifteen miles. The land on the Mourir is above overflow, covered with cane to the depth of from a quarter to half a mile from the margin of the stream.

Between Bayou Maringouin and Atchafalaya river, and in general in the intermediate space between the water courses, Point Coupée island is annually overflowed. The timber varies with the diversities of soil and surface, and corresponds in every respect to that of other parts of the adjacent country.

Point Coupée Island is terminated on the south, by the bayou Plaquemine, and Atchafalaya river. The bayou Plaquemine leaves the Mississippi river twenty-two miles below Baton Rouge, flows to the west fifteen miles, and falls into the Atchafalaya. The banks of the Plaquemine is within ten miles of the Mississippi sufficiently high for settlement; but towards the mouth can with difficulty be preserved from annual submersion. The channel of this bayou is, when the waters of the Mississippi river are high, the communicating route between the inhabitants of Opelousas, and the upper part of Attacapas, and the Mississippi river. More will be said of the Plaquemine in the sequel.

The river Lafourche leaves the right bank of the Mississippi 30 miles below the efflux of Plaquemine, and pursues nearly a S. E. by S. course, ninety miles, falls into the gulph of Mexico, at $28^{\circ} 58'$ N. lat. and $90^{\circ} 30'$ W. lon. Following the winding of the stream, the Fourche exceeds one hundred and twenty miles in length, ninety of which are settled. The whole extent of the banks of this river is within the sugar region. Many sugar houses are established, and the culture of

the cane gaining annual increase. In point of soil, surface, timber, and every other respect, the Fourche presents a reduced picture of the Mississippi.

Between the Fourche and Atchafalaya, south of lake Palourde, passes bayou Boeuf, entering the latter river, at the lower extremity of Berwick's bay. Bayou Boeuf, is formed from several streams, that rise east of lake Palourde, and unite with an outlet of that lake. The margin of Bayou Boeuf, and bayou Black, is an alluvial soil, of quality equal to any in Louisiana, covered with strong cane, and heavy timber. West of Lafourche, and south of bayou Boeuf, rise a number of small streams, that run nearly south into the gulph of Mexico. The upper parts of Derbane, the grand and Petit Caillou, bayou Peau de Chevreuil, (deer skin) and bayou du Large, possess a soil equal to that on the Boeuf. Timber, however, ceases upon the banks of those latter waters, fifteen or twenty miles above their egress into the gulph. Trees are rare, upon the Fourche, twenty or thirty miles above its mouth, and entirely disappear some distance from the sea.

Below the efflux of Lafourche, the lands after leaving the banks of the river, are too monotonous to demand much detailed description; mostly morass, devoid of trees, and sunk to nearly the level of high tide. The space between the Mississippi, Fourche, and gulph of Mexico, chequered with lakes and interlocking bayous, will be better understood from the map, than verbal description. The plane, stretching between the left shore of the Mississippi, and lake Pontchartrain, lake Borgne, and Chandeleur bay, has characteristics in common with that sloping from the opposing bank of the Mississippi, and demands no additional description.

The island formed by the Mississippi, Atchafalaya, Bayou Boeuf, and the Fourche, is, except the banks of the former and latter streams, annually overflowed. The timber most prevalent on this island, and that enclosed between the Teche river, and lake Chetimaches, is composed of the same species usually produced by the inundated lands of Louisiana; cypress, ash, swamp white oak, hackberry, and persimmon. On this island, and east of Atchafalaya, are several lakes; the most noted of which are, Natchez, Palourde, and Verret.

To the left of the Mississippi river, and right of lakes Maurepas, Pontchartrain, and Borgne, the country, except upon the margin of the streams, where timber is alone found, presents one vast grassy marsh interspersed with lakes. West of the La Fourche river, and about 30 miles inland, this marsh continues to, and is only interrupted by the Atchafalaya river. Several places above New-Orleans, the marsh approaches near, and is visible from the Mississippi. Below New-Orleans, the selvage of trees becomes gradually narrower, until about Fort St. Philip on the left, and a short distance below on the right, timber entirely ceases.

The country between the Iberville, Amite, and Mississippi rivers, is generally covered with timber; soil inundated except upon the margin of the streams.

Mississippi River.

Many treatises have been written upon this great river; and but few correct philosophical ideas respecting it have been published. The causes of its rise and fall; the revolutions in its quantity of water; the changes of its course; the laws of its general motion,

and the real rapidity of the stream, have been but little understood.

We may lay down the following, as the universal law of the motion of water. It moves with equal velocity, in equal times, at equal depths, on equally inclined planes.

The preceding law, when once understood, is like that of gravitation; too obvious in its principles to permit doubt. The consequence of its application to rivers, is, that their waters at equal elevations, move equal distances in equal times; therefore, when swelled by accretion of water, no additional velocity is communicated to the decumbent volume. If rain produces an accumulation near the sources of rivers, a greater inclination is given to the surface; therefore an increased rapidity is the consequence; but the decumbent waters continuing to move upon the same plane, retain an uniform motion.

Either from inattention to the principles of hydraulics, or from assuming the velocity of the surface as that of the mass; the motion of all rivers have been overrated. Respecting none, has ignorance of their true motion led to more erroneous conclusions, than the stream of the Mississippi.

Presenting the following observations upon that very important river, I am far from pretending that my inductions will all be clearly drawn from correct reasoning upon the phenomena under review. I will exhibit the facts to the public, and give, as far my means of information extend, an accurate view of the estuary of the greatest river in the United States' territory; and the longest and largest stream of this globe, whose whole course lies within one sovereignty.

From the 33° N. lat. to the mouth of Red river, only

one bank of the Mississippi is in the state of Louisiana, the distance three hundred and six miles. From the mouth of Red river to the sea, (following the meanders of the river,) is three hundred and twenty-six miles. Fifty miles above the entrance, the banks are too low for cultivation; therefore the arable lands below Red river, including both banks, may be estimated at five hundred and fifty miles, and adding in round numbers three hundred miles above Red river, gives 850 miles, as the cultivatable border of the Mississippi, within the state of Louisiana. In making an estimate of the quantity of cultivatable soil and woodland, that would be adequate to a farming establishment, one mile and a half may be assumed as the mean depth, which ought to be included in an evaluation of the river lands: this data would produce 1,275 square miles, or 826,000 acres, as the arable superficies of fluviatic soil, adjacent to the Mississippi, below the 33° of N. lat.; considerably more than one half of which is below Red river. Nothing can be more vague than an attempt to calculate the mean depth of the Mississippi; so much variation arises from the ever-varying height of the water, from projecting sand banks, from islands, and other localities. The breadth is equally variable as is the depth, but can easier be reduced to a medium. One observation may be made here, that will apply to most rivers; that is, the over-calculation that is generally made of their width. From careful triangular measurement of the Mississippi, made at Natchez, at the efflux of the Atchafalaya, the efflux of Plaquemine, and near to the efflux of the Lafourche, at New-Orleans, fort St. Philips, and at the Balize, the medial width is found to be short of half a mile, or 880 yards. When not inflated by islands, it seldom exceeds more than

thirty-five of Gunter's chains, or seven hundred and seventy yards; it is probable that if the numerous islands were estimated, the mean breadth might be established at one thousand yards, without any very material error; but those islands only dividing, and not augmenting the water, eight hundred yards may be safely assumed as the width of the cubic column of that element, contained between the banks of the Mississippi. The velocity of the stream has also been extremely exaggerated; it is a well ascertained fact, that a common flat boat, floating only during the day, (say one half of the time,) will reach New-Orleans from the mouth of the Ohio, many days before the apex of the high flood. The rapidity of the middle current has given rise to very erroneous calculations, as it respects the motion of the whole mass. Much delay is caused by the friction on the banks, from counter currents, and from the islands checking the waters below their points, that perhaps one mile an hour is a high calculation for the surcharge of the Mississippi. A transversal section of the river is not a semi-ellipsis, but approaches that geometrical figure, near enough to permit its use in estimating the cubic quantity of water contained in any given length. The opposing ordinates will not be of equal height, but as the figure becomes inverted in every bend, the elliptical area will advance towards the truth to a very near degree of approximation.

From these premises, we may imagine a semi-ellipsis, whose longitudinal diameter represents the river's breadth, and whose longest ordinate, its depth; allow one hundred and fifty feet, as the length of the ordinate line, or depth of water at the greatest elevation, and twenty-four hundred feet as the extent of the elliptical

diameter, or river's breadth, we are confident that these constituent principles will give a very correct result. From the application of the above elements, 141,372 cubic feet would be contained within one foot, longitudinal section, of the river. At the rate of one mile an hour, 5,280 feet in length would be discharged every hour, or 746,444,160 cubic feet, of the entire mass*. If the water at different stages of elevation is considered as superincumbent strata, every single stratum will move with nearly uniform motion, the friction of the super stratum having exactly the same tendency to retard its own motion, as to accelerate the one next below.

The exposition of this simple hydraulic principle, will demonstrate the falsity of the idea, that the whole mass of water in the river moves with more velocity at different degrees of height. Though from the pressure of the accumulating particles from above, the super stratum gains more and more inclination on the plane of acceleration, yet the incumbent strata preserving the same inclination, with little variation, must move equal distances, in equal times, throughout the year, very nearly. When the river commences to fall, the superficies continually losing inclination, the upper column moves more slowly in proportion to its approach to a level with the curve of the sphere, upon which it flows.

From the above premises, the mean motion of all rivers, departs but little from the extremes. We will now proceed to apply the principles laid down, to their use in improvements made; or that may be made, to render the bank of the Mississippi, an agreeable, safe, and profitable residence. At the first epocha of the

* Equal to 4,573,938,000 gallons.

settlements on Mississippi, no method appeared obvious, or indeed practicable, but to raise an embankment, or levée of earth in front of every plantation. Those levées, by stopping the overflow, reclaimed a small portion of the bank. By extending the levée, every place may be made cultivatable, where the inclination of the earth's surface prevents the water from reflowing from behind. But the system of levées possesses a retro-active effect. The confined body of water increased in height, and by its natural impression, every moment making an effort to break through, occasions annually, serious injury to the planters on the coasts, both above and below New Orleans. Nothing is more dreaded by the inhabitants than those fissures, or as they are aptly termed, Crevasses ; yet from the natural carelessness of the human species, no sooner does the flood subside, than the danger, and all serious reflections on the means to prevent its recurrence, subsides also*.

* Since this work was put to press, alarming accounts have been published respecting a Crevasse, in the Levée, on the left bank of the Mississippi, in the same bend in which the city of New Orleans is situated. This recent Crevasse differs in nothing from those that occur almost annually, and that must occur again, until a change of system is adopted respecting the Mississippi banks.

Crevasses are occasioned by two causes ; first, the yielding of the Levée, and secondly, the sinking of the bank of the river. The former kind could, in most instances, be prevented, by prudently retiring the Levée from the immediate margin of the river ; the latter is more frequent, and is almost uniformly produced by neglect.

The preventive, by forming artificial outlets sufficiently wide to admit the water to flow over the natural bank into the adjacent lakes, is the only means that will ever remove the danger of Crevasses.

During the great floods of 1811 and 1813, much damage was done by the water rushing through the rents in the levée. Hitherto the only means to reclaim the lands adjacent to the river, has been by levées, or to remedy any casual accident accruing to those levées, has been to increase and strengthen

vasses. The natural outlets of the Mississippi, having all banks higher than the neighbouring country, will not consequently receive, by any human labour, much more water than now enters at high flood. We have recommended the lowest part of the margin of the Mississippi as the most suitable places to form those sluices. A deep canal ought to be cut that would carry a current from the river at all seasons; and above and below its efflux a strong Levée, formed from the river to whatever lake was made the deposit. The distance between those Levées ought to exceed the width of the Mississippi considerably.

We are far from expecting that this improvement will soon be carried into effect, though its beneficial consequences are too obvious to demand demonstration. Two causes oppose themselves to all human improvements—the difficulty of convincing the public of their utility and practicability, and the greater difficulty of withdrawing men from their habitual course.

There are some local peculiarities in the bend in which New Orleans stands, that render the consequences of a Crevasse at that place more than usually injurious. Near Mr. Sauvé's plantation rises bayou Metarie, which runs into Bayou St. Johns, in the suburb of that name. In a line with bayou Metarie, but on the contrary side of bayou St. Johns, rises bayou Sauvage, which continues its course into the pass of Chef Menteur. Both the Metarie and Sauvage have high banks in continuity, except the interval made by bayou St. Johns.

Bayou Bienvenu rises behind the suburb Marigny, and runs into lake Borgne. Through the latter bayou, the waters of the late Crevasse found the widest vent, and flowed where did most part of the water that escaped from the Mississippi, in the New Orleans bend, before the Levées were formed.

them*, which is one of the primary causes of the excess of the flood. Any person who, from a long and careful attention to the subject, and who possesses a good map of the Mississippi, and contiguous rivers, and lakes, must be convinced that levées are inferior in efficacy to artificial sluices, that would convey the surplus water in one or two bodies to the sea, by any other route than the river. To explain this subject

* After the first edition was printed, the following opinion of M. de Prony, on the subject of the overflow of the Po, met the author's observation. The scheme proposed by M. de Prony being so perfectly the same as that offered in this work respecting the Crevasses of the Mississippi, the author could not deny himself the aid of so respectable a name; nor withhold from his readers the benefits of foreign experience on so important a subject.

“ M. DE PRONY, a learned member of the Institute, and inspector-general of bridges and highways, has communicated to me some very valuable observations to explain the changes which have taken place on the flat shores usually denominated the *Littoral* of the Adriatic, and which will be found appended to this Essay. Having been directed by government to examine and report upon the precautions which might be employed for preventing the devastations occasioned by the floods of the Po, he ascertained that this river has so greatly raised the level of its bottom, since it was shut in by dikes, that its present surface is higher than the roofs of the houses in Ferrara. At the same time the alluvial additions produced by this river have advanced so rapidly into the sea, that, by comparing old charts with the present state, the coast appears to have gained no less than fourteen thousand yards since the year 1604, giving an average of an hundred and eighty to two hundred feet yearly; and in some places the average amounts to two hundred feet. The Adige and the Po are both at present higher than the intervening lands; and the only remedy for preventing the disasters which are now threatened by their annual overflows, would be to open up new channels for the more ready discharge of their waters, through the low grounds which have been formed by their alluvial depositions.”—*Essay on the Theory of the Earth.* CUVIER.—*Edinburgh Edition, 1813, page 138.*

clearly, it will be necessary to review the different outlets from, and approximations of water courses to the Mississippi, from the efflux of Iberville to the gulph of Mexico.

The real nature of the efflux of the Atchafalaya, from the Mississippi, and the features of that remarkable place, will be more particularly noticed in the description of the S. W. section. The erroneous idea that the raft in the Atchafalaya impedes the isssue of water from the Mississippi, will be examined also. Whether any works made on or near the Atchafalaya, would tend to draw into that stream an additional column of water, of magnitude sufficient to make a beneficial diminution of the body annually passing through the Mississippi, deserves particular attention. If it was practicable to divert into the Atchafalaya any much greater quantity of water than what enters that river in the highest floods, so much damage would certainly be done to the inhabitants of Opelousas, but more especially those of Attacapas, residing in prairie grand Chevreuil, as to render such project inapplicable. It would be ruining one part of the community to benefit another. The superficial extent of annually overflowed lands, near the Atchafalaya, is interrupted by many strips of high land, that are never, or but seldom overflowed, which render the distances between them, at high water, so many actual bays, of from one to six feet in depth in any common annual floods. In 1813, when Point Coupée Levée was broken, the water rose four or five feet above any elevation it had attained since 1780. During the month of June of that year, which is ordinarily the season of greatest rise, the level of the general body of water, from the efflux of Atchafalaya, could not have augmented in height more

than four feet, without having thrown the water of the inundation into the Teche, in almost its whole length, above the town of St. Martin.

From the efflux of Atchafalaya to the mouth, there is but one place, (the mouth of Plaquemine,) where that river approaches very near the Mississippi. It has been remarked, that from the Cow island to the mouth of Plaquemine, the course of the Atchafalaya is east. It is only seven miles in a direct line, from where the Plaquemine leaves the Mississippi, to its discharge into Atchafalaya.

Here from the near approach of the latter to Mississippi, is one point, where a considerable body of water could be drawn from that river, without any very extraordinary expense. In autumn, when the waters are low, the tide reaches up the Atchafalaya and Plaquemine, to Blakes, within five miles of the Mississippi. This fact proves that there is as much depression of surface in the short distance, from the efflux of Plaquemine, out of the Mississippi, to its discharge into Atchafalaya, as there exists from the former point, to the common level of the gulph of Mexico, or more concisely, the Plaquemine, in its comparative length of seven miles, has nearly the same perpendicular fall, as its parent stream, in a direct distance of one hundred and seventy miles.

It will be seen from the preceding, how much facility is afforded to aid artificial drains, by the great descent of the plane in a short distance; superadded to the beneficial diminution of the volume of the Mississippi, would be the incalculable amelioration of the navigation of the Plaquemine, were its channel made wider and deeper. The surplus water discharged at this place, would not in spreading over the islands towards the

mouth of the Teche, produce the same ruinous consequences, as would a much less quantity, if drawn from the Mississippi by the Atchafalaya. It has been shown, that all the distance between the high land of Teche, and that of Lafourche river, is annually overflowed. A receptacle is offered to all the water, that does naturally, or that can by human means be abstracted from the Mississippi by the Plaquemine.

The Iberville, or Manchac, admits indefinite improvement. It is sixteen miles in a direct line, from the Mississippi, to the junction of the Manchac with the Amite river. The united stream presents a fine body of water, admitting vessels of six feet draught. The tide flows up the Manchac, to the mouth of Ward's creek, within nine miles of the Mississippi.

It is a singular and curious circumstance, that the tide in Manchac and Plaquemine flows within fifteen miles of actual contact, upwards of two hundred miles following the stream, above the mouth of the Mississippi.

Galveston stands upon the right bank of the Amite, at its junction with the Manchac. The ground is sufficiently elevated to admit the building of a city, without any artificial accretion of soil. Was the bed of the Manchac made sufficiently deep and wide to admit uninterrupted navigation, the advantages that would accrue to the commerce of Louisiana, would be certainly immense. The point of contact between boat and ship navigation, would be removed much farther into the interior of the country. A route would be opened for the direct introduction of the produce of the regions upon the northern waters of Ohio and Mississippi, into the fine settlements of West Florida.

No great diminution of the waters of Mississippi

could be made by the Manchac, without producing a reflux mass of water, that would materially injure the plantations upon the Mississippi, between St. Gabriel church, and Bonnet Quarré.

It may be observed, that there are two evils, arising from surplus water, to be remedied on the Mississippi; one, the incumbent waters in the river; the other, the reflux from the swamps. It is in most instances very difficult to remove one inconvenience, without producing the opposite.

It may be assumed as a postulatum, that no useful purpose, as it respects the consequences of overflow, can be ever answered by drawing part of the waters of the Mississippi into new channels, unless a reservoir into which the surcharge can be thrown, exists within a few miles of the main stream*. This advantage is

* No correct judgment can be formed upon the best means of obviating the inconveniences of the inundation of the Mississippi, without having determinate ideas, upon the real motion of water. That the rapidity of the mass of water in the Mississippi, is usually overrated, has been shown; but not only the body of the fluid in the river, has been supposed to move more rapidly than it does in fact; the current itself proceeds a much less distance in a given time, than is commonly thought. The following, taken from actual measurement, will illustrate the soundness of the conclusions formed in the text.

From the falls of Niagara to Lewistown, is seven miles, following the stream; about five and a half miles in a direct line. In this distance the water falls 104 feet; *and from very careful admeasurement and observation, runs within a small fraction of four miles an hour.*

The given fall in the above distance is very much greater, than the depression of the plane upon which the Mississippi flows. If the motion of the great mass of water, was as great as commonly thought, no inundation would succeed, the fluid must reach the gulph too soon to admit accumulation. When the water flows from the main stream and meets with no place of deposit like lake Pontchartrain, lake Borgne, or the Atchafalaya, it quickly rests on the back lands; and finally produces a reflux towards the river.

Water would be reduced to foam, by having fall enough to produce but very little more acceleration, than is allowed to streams moving upon planes having very slight inclination, such as the Mississippi and Atchafalaya.

only offered by the Plaquemine, on the right bank of the Mississippi. On the left shore, Bonnet Quarré Point, is the first place where a contiguous deposit for the water approaches sufficiently near the Mississippi. A moment's inspection of the map, will at once determine this place to be, without comparison, the most eligible for the creation of a large channel of conveyance, for the superabundant water, that every summer injures, more or less, the inhabitants of Louisiana, seated upon the Mississippi, between Manchac and the English Turn.

Like the descent at Plaquemine, there must be the same fall, from low water mark at Bonnet Quarré, to the level of lake Pontchartrain, that there is from the former place to the mouth of the Mississippi. The actual distance from the Bonnet Quarré, to Pontchartrain, is less than five miles. If a large canal of communication was cut, there is no doubt, but that an immense quantity of water would be drawn from the Mississippi. Finding an immediate deposit where the decumbent mass could expand, none or very little accumulation of water could take place, in the intermediate space between Pontchartrain and the banks of the Mississippi, in the parishes of St. Bernard and Orleans.

How much a canal from Bonnet Quarré to lake Pontchartrain, would benefit the people of Louisiana in their commercial pursuits, is very difficult to determine. There is no doubt, however, but that a very great part of the waters of the spring floods, could be diverted from the Mississippi at this place. The real expense attending the necessary works, would no doubt fall far short of the never ending expenditure of the levées; and have the advantage of superinducing much greater safety to the crops.

Some persons have contended, that if a sluice of water was opened from the Bonnet Quarré, or any similar place, that the entire body of the river would, from the rapid descent of the plane, turn into the new channel. Such suggestions, though plausible, are unfounded.

From actual and careful admeasurement, the depth of the Mississippi at Mr. Bringier's, nine miles below the efflux of the Fourche, was from the extreme high bank of the river one hundred and fifty-three feet. The depth of Pontchartrain is about eighteen or twenty feet; never much less or more. The difference between the maximum and minimum elevation at Mr. Bringier's, is twenty-three feet. The difference between the common level of Pontchartrain, and the low water level of the Mississippi, is about eight or ten feet. From these elements it results, that if we subtract twenty-three from one hundred and fifty-three, we have one hundred and thirty feet, as the depth of the Mississippi. If we add ten feet, the perpendicular fall from low water level in the river, to eighteen feet, the common depth of the lake, and take the sum, twenty-eight, from one hundred and thirty, the remainder, one hundred and two feet, is the least depth of the bottom of the Mississippi, below that of lake Pontchartrain.

The reason why the narrow necks in the bends of the Mississippi, are so often and easily cut by the incumbent water, is, that they are mere walls of sand and earth, which, when broken down, the water finds its usual capacious channel.

The bed of the Mississippi, like that of all other rivers, is the deepest valley in the country through

which it flows*. Nothing can have less foundation, on principles of sound philosophy, than the common notion of the liability of the Mississippi to desert its channel. There exists no data in the country to substantiate this opinion. Grand lake, lake Providence, lake St. Joseph, lake St. John, and lake Concordia, and Fausse Riviere, on the right bank; and the Yazoo and Homochitlo lakes on the east, were all, no doubt, once part of the Mississippi bed. These lakes are similar to each other, and differ entirely in their appearance and nature from all other lakes in the delta of the Mississippi.

If this great river had at any time flowed in any other route than the present, monuments would remain to attest the fact. The natural process of the Mississippi is to protrude the lands near its outlet. There are good reasons to believe that this protrusion is still in slow operation.

All observations made, respecting a canal from Bonnet Quarré, will equally apply to one, if made from general Villaret's or Jumonville's plantations, below New-Orleans, into lake Borgne, by Bayou Bien-venu. Similar improvements may also be made from the Mississippi, into Black lake at the mouth of the river Aux Chênes, and at the prairie Aux Moulles; but below the English Turn, neither commercial facility, or diminution of overflow, would result so extensively from canals as above the latter place.

Perhaps, in fact, no situation on the Mississippi

* Mr. Schultz, in his travels, makes a similar remark respecting the Mississippi. Most writers on Louisiana being better acquainted with the surface, than the bottom of this subject, have drawn contrary conclusions.

could be more beneficially improved, than the space between Villaret's, and lake Borgne. This place has been rendered remarkable by the advance towards New-Orleans, of the British army in December, 1815.

The history of the Mississippi, given by Hutchins, and copied from his works by almost every writer who, since their publication, have treated upon that river, has contributed to give very false conceptions upon the causes of change of bed, formation of islands, and velocity of the stream. It is one of the instances where assumptions contradictory to the very laws of nature, are taken without examination, and adopted on trust.

But very little reflection would have taught any person, that the foundation of islands must be laid at the bottom of any river in which they are formed. That a floating tree could have no agency in the commencement, and but little in the accumulation of materials to frame an island, must be admitted. In digging into the earth near the Mississippi, wood is frequently found mixed with the sand or clay, but in so little quantity, as to render its relative bulk almost nothing when compared to the entire mass.

Islands, in every instance where I myself have seen them, in a state of augmentation, exhibited a border of young trees, mostly cotton wood, and willow. The river Mississippi itself exhibits mostly on one side a breaking steep bank, and on the opposite a sand bar, gradually rising from the river, and terminating with a border of young trees. By the changes of current, bodies of mud and sand accumulate first at the bottom, augmenting annually, until the surface is left naked. On the retiring of the spring floods, thousands of young trees rise; which in a few years become sufficiently large

to arrest the alluvial soil; their roots become eventually elevated above all but the very highest freshes. It is thus that islands are formed, and it is thus that the banks change.

The late Col. John Girault informed me, that the point on the west side of the Mississippi, above Natchez, had increased since 1774 to 1807, upwards of a quarter of a mile. Whilst the conversation took place, we were standing upon the right bank, at the Natchez landing, in full view of the point, and could distinctly see the annual growth of trees rising above each other; a phenomenon I have seen in innumerable instances, on the Mississippi, Atchafalaya, and Red rivers.

Some islands are formed by the points being cut by outlets from the river, and often two or more islands are united and formed into one, by the intermediate space being filled up by accretion of soil, and growth of trees. This latter change has taken place below Red river with the islands formed, called the Three Sisters. Most of the rivers that flow from the Mississippi resemble that stream in the appearance of their banks; none, however, so much so as the Atchafalaya, above the great raft.

The other rivers of Louisiana which flow into, or which do not communicate with the Mississippi, present a very different aspect; the Red river, Ouachitta, and Teche, on the west, and all those of the east to the Mobile inclusive. The Teche, which in one circumstance, the elevation of its banks above the adjacent country, does resemble the Mississippi, is in every other respect different. The Teche never overflows its banks, is generally much less comparatively winding, and where it does form bends, they are not so abrupt as those of the Mississippi.

On all the wide range from Mobile to Sabine river, there exists no appearance having any striking analogy to the Mississippi, except near rivers derived from that stream. The lakes near Red river, those along the coast of the gulph of Mexico, and those of Maurepas, and Pontchartrain, differ essentially from each other, but infinitely more so from Providence, St. Joseph, St. John, Concordia, Homochitta, and Fausse Riviere. The latter were no doubt once part of the bed of the Mississippi, and preserve their family physiognomy.

That the entire surface of the delta from far above Baton Rouge to the mouth of the Mississippi, has been formed chiefly by the soil brought down by that great river, I have no doubt; but I have as little doubt that the present has been always since its first formation, the bed of that stream. On the subsiding of the spring floods, I have seen the water flowing from the Atchafalaya into the Mississippi. This circumstance is very contrary to the common opinion on the subject, but it is true; I was witness to the effect in the fall season, of three years. Indeed so near completely is the communication cut off, at low water, between those two rivers, that very often a common canoe cannot be taken from one to the other.

The beds of the Iberville and Plaquemine become annually dry, and that of Lafourche has been so occasionally.

It may be seen from this statement, that, although a possibility exists to divert much of the surplus water of the spring floods from the Mississippi, and of course obviate greatly the ruinous consequences of its overflow, yet to change even partially the bed of the river, is opposed by a physical impossibility. A survey ought to be

made of the banks from Plaquemine to the English bend, the elevations of the different places noted, and the distances from the Mississippi to such lakes or rivers into which the surplus could be discharged.

I am myself confident of the result of this plan, if judiciously carried into effect; there remains upon my mind not the smallest doubt, but the inhabitants below the Atchafalaya might be relieved entirely from the flood of the Mississippi, at a far less expense than they have been, and are subject to at this time. I have stated the length of the levée below Atchafalaya river, at 550 miles. That this levée costs annually fifty thousand dollars, if labour and damage are both estimated, there can be little doubt.

This subject demands very serious attention from the land owners of that country, and indeed from every citizen of the Union. Many may not easily submit to the force of the reasoning I have used, but I must desire them to examine before they condemn. As early as 1812, I gave the same opinion in the city of New-Orleans. I have seen nothing to change it since. I know that the evil of crevasses, like other human calamities, are always much exaggerated; but they are an evil of great magnitude, and the means to obviate this evil ought to be sought, and if found, adopted.

Those general remarks upon the Mississippi might be much dilated; but we trust, enough has been said to give a correct idea of the country adjacent to the bank, and included in the delta of this noble river.

The Parishes contained in the S. E. section, are, Plaquemine, Orleans, St. Bernard, St. Charles, St. John Baptiste, St. James, Ascension, Assumption, Inter-

rior of Lafourche, Iberville, West Baton Rouge and Point Coupée.

Parish of Plaquemines.—Bounded S. W. by the gulph of Mexico, S. E. by the gulph of Mexico and Chandeleur bay, north by lake Borgne, and west by the parish of Orleans; it extends over fifteen hundred square miles of surface.

The Rivers, are the Mississippi, Terre au Boeuf, Riviere aux Chênes, and Bayou Bastien.

The Settlements are confined to the banks of the Mississippi, above Fort St. Philip, and to those of Terre au Boeuf, above its confluence with lake Lery. Some lands fit for culture exist on Bayou Bastien; but not of great extent, and remain mostly unoccupied. The border of the Mississippi and Terre au Boeuf are similar in soil and timber. When receding but a short distance from either, the surface of the earth sinks to a level with high tide; and is devoid of wood, is covered with grass, and is an irreclaimable morass.

The whole of this parish is within the sugar climate, and what surface is arable, has an excellent soil; some of the largest sugar estates yet formed on the Mississippi, are within its limits.

Maize, rice, tobacco, indigo, and cotton, are all produced; and each might, especially rice and cotton, become its staples; though sugar claims that pre-eminence at present.

The indigenous timber trees are the *quercus virens*, chiefly on Terre Aux Boeufs and Riviere Aux Chênes; the *quercus lyrata*, *quercus phellos*, the *fraxinus tomentosa*, *acer rubrum*, *Magnolia grandiflora*, *cupressus disticha*, *nyssa aquatica*, *diospiros virginiana*, *juglans aquatica*, *gleditsia triacanthos*, *laurus caroliniensis*, *Platanus occidentalis*, *liquidamber styraciflua*, *celtis crassifolia*.

ulmus alata, *ulmus Americana*, *populus angulata*, and *salix nigra*.

No towns have yet been built in this parish, nor from its proximity to New Orleans will any, in all probability, rise, possessing any considerable population. Woodville was laid out many years ago, near the English Turn, but has made but little progress.

The important post of Fort St. Philip, at the Plaquemine bend, is emphatically one of the defences of Louisiana. Fort St. Leon, at the lower extremity of the English Turn, is well situated to impede the progress of ships of war up the Mississippi. Fort Darby, at the confluence of Terre Aux Boeuf, and the discharge of lake Lery, was built during the campaign of 1815, under the direction of the author of this work, by order of general Jackson, to prevent the advance of the enemy through the Terre Aux Boeuf, or Riviere Aux Chênes.

Parish of Orleans.—Bounded north by lake Pontchartrain and the Rigolets, east by lake Borgne, and the parish of Plaquemines, S. E. by the gulph of Mexico, and west by the parishes of St. Bernard and the interior of Lafourche; possessing an area of one thousand and three hundred square miles.

Rivers and Bayous.—The Mississippi, Chef Menteur, Rigolets, Bayou Bienvenu, Bayou Sauvage, or Gentilly, Bayou St. Johns, and the chain of Bayous that connect the Mississippi with Barataria Bay.

Bays and lakes.—Lake Pontchartrain, lake Borgne, Barataria Bay, gulph of Mexico, Caminada Bay, and lake Des Islets, lake Ronde, Little Lake, and the Quacha Lake.

Soil, climate, and vegetable productions.—Most of the surface of the parish of Orleans is morass, covered with grasses of different kinds. Wood is only found upon the banks of the Mississippi, Bayou St. John, Bayou Sauvage, the sources of the Bayou Bienvenu, and some strips upon the various lakes and bayous towards Barataria Bay. The climate is within the range suitable to the sugar cane. Many very fine sugar farms are in operation, both above and below New Orleans. Maize, rice, indigo, cotton, and tobacco, all grow luxuriantly ; the four last have, and except indigo, continue to form staple commodities. Most culinary vegetables suitable to the climate are cultivated in the parish, and brought into the market in New Orleans. The peach, orange, and three or four species of the fig, are the exotic fruit trees that have been most extensively introduced on the Mississippi. All those fruits are in their respective seasons abundant in the New Orleans market. Apples are mostly brought down the Mississippi, and are in winter and spring sold cheap. Of culinary vegetables the most abundant are pulse of all kinds, cabbages, turnips, sweet potatoes, onions, carrots and lettuce.

The indigenous forest trees.—The *cupressus disticha*, *populus angulata*, *platanus occidentalis*, *liquidamber styraciflua*, *salix nigra*, *celtis crassifolia*, *nyssa aquatica*, *gleditsia triacanthos*, *diospiros virginiana*, *fraxinus tomentosa*, *acer rubrum*, *acer negundo*, *ulmus Americana*, *ulmus alata*, *juglans aquatica*, *quercus virens*, *quercus phellos*, *quercus lyrata*, *quercus aquatica*, and *quercus falcata*. Some stems of the *ilex opaca* are found, but the tree is rare ; the same observation may suffice for the *gleditsia monosperma*, and the *morus rubra*.

For buildings of all kinds where wood is used, cypress (*cupressus disticha*,) is most in demand. Fuel is composed generally of the *fraxinus tomentosa*, *acer negundo*, *quercus lyrata*, *salix nigra*, and *celtis crassifolia*.

Towns, villages, and forts.—NEW ORLEANS, the capital of the parish, and of the state of Louisiana, stands upon the left bank of the Mississippi; $29^{\circ} 57'$ N. lat. $90^{\circ} 8'$ west of Greenwich, $13^{\circ} 9'$ west of Washington City, one hundred and five miles following the stream, above the bar at the mouth of the Mississippi, and about ninety miles in a direct line.

New Orleans consists of the city properly so named, in the form of a parallelogram, 1320 yards along the river, and 700 wide backwards towards the swamp. Above the city and adjoining, is the suburb St. Mary, and above St. Mary's, the suburb of the Annunciation. Below the city are the suburbs Marigny, Daunois, and Declouet. Between the city and Bayou St. John, are St. Claude and St. Johnsburgh.

But little of the ground laid out in streets and lots, in the suburbs, is yet built upon. The houses, except in the city, occupy but a small distance from the river. Wood is the chief material, though many fine brick buildings exist, and that substance is annually increasing in use. Stone is found at too great distance to be ever very extensively used in New Orleans.

The streets are not yet paved; though a paved foot-way lines most streets in front of the houses, with gutters to carry away the surplus water.

Public buildings deserving notice.—The Principal, or town-house, at the N. W. corner of Chartres and St. Peter's streets; the hospital, standing in the suburb St. Mary, opposite the square, between Dauphin and

Burgundy streets. The church of St. Louis in front of Orleans street, upon Chartres street. The convent of Ursulines, upon Ursuline street, between Levée and Chartres streets. The barracks, upon Garrison and Levée streets. The custom house, in front of the square between Canal and Levée streets. The market house, upon the Levée, in front of the square between St. Anne and Du Maine streets. Orleans bank upon Conty, between Chartres and Royal streets. Louisiana bank, upon Royal, between Conty and St. Louis streets. Planters bank, S. W. corner of Conty and Royal streets. Government house, N. W. corner of Levée and Toulouse streets. District court of the U. S. upon Royal, between Du Maine and St. Philip streets, and Latrobe's water works, on Levée, in front of the square between Ursuline and St. Philip streets.

By the census of 1810, New Orleans and suburbs contained 17,242 persons. There has been a constant and sometimes a rapid increase since the period of taking the census. An annual increment of 1000, may be safely added, giving for the present population 24,242 persons. The actual number exceeds, rather than falls short of this estimate.

No city perhaps on the globe, in an equal number of human beings, presents a greater contrast of national manners, language, and complexion, than does New Orleans. The proportion between the whites and men of mixed cast or black, is nearly equal. As a nation, the French amongst the whites are yet most numerous and wealthy; next will be the Anglo-American; thirdly, the natives of the British Islands. There are but few Spaniards or Portuguese—some Italians; and scattering individuals of all the civilized nations of Europe.

Much distortion of opinion has existed, and is not yet eradicated in the other parts of the United States respecting public morals and manners in New-Orleans. Divested of pre-conceived ideas on the subject, an observing man will find little to condemn in New-Orleans, more than in other commercial cities; and will find that noble distinction of all active communities, acuteness of conception, urbanity of manners, and polished exterior.

There are few places where human life can be enjoyed with more pleasure, or employed to more pecuniary profit.

Fort St. Charles occupies the space between the N. E. extremity of New-Orleans, and the south extension of Marigny's Suburb. This fort is one of four, that under the government of Spain, stood at each corner of the city. The American government have demolished the other three. Except as a residence for the officers of the army, fort St. Charles cannot answer many military purposes. Either in checking the advance, or repulsing the attacks of an enemy, it could yield but little aid.

Fort St. John, at the entrance of Bayou St. John into lake Pontchartrain, is very well situated to defend this important pass. From the nature of the country, armies can only proceed by water to New-Orleans; and St. John could not easily be either taken or passed, if well garrisoned and defended.

Fort Petite Coquilles, at the junction of the Rigolets with Pontchartrain, is one of the most important posts in Louisiana. It is the key to West Florida, and effectually covers one flank of New-Orleans. While this excellent position is maintained, it would be extremely difficult for an enemy to get into the rear of the city.

and if well constructed, strongly garrisoned, and skilfully commanded, few places could present a more formidable aspect to a besieging army; the country around devoid of wood, and mostly a morass, would render very hazardous either sudden attack or regular approach.

It is impossible for the government of the United States to bestow too much care upon this post. The writer of this work was present in New-Orleans during the interesting campaign that closed the last eventful war. So completely was the public convinced of the vital importance of Petite Coquilles, that every account from it was eagerly received, and every report of cannon in that direction excited more than usual anxiety. A defeat of the United States' army could scarce have created more despair in the city, than would have an account that the Petite Coquilles was taken by the enemy. His severe repulse at Mobile Point prevented in all probability an attack. The British vessels came often into the Rigolets, but never advanced within cannon shot of the fort.

Petite Coquilles and St. Philip*, are the great outposts of New-Orleans, the other water courses are so long, shallow, circuitous, and intricate, as to preclude an easy approach; there is then but little to fear for New-Orleans, whilst the Mississippi and Rigolets are successfully defended.

Parish of St. Bernard, or German Coast.—Bounded east, by the parish of Orleans, N. E. by lake Pontchar-

* Though the British army advanced towards New-Orleans by Bayou Bienvenu, it is in a military view of much less consequence than either of the above places; Bayou Bienvenu might indeed be easily closed by obstructions, and rendered unnavigable.

train, N. W. and west, by the parish of St. Charles, and south by the parish of the Interior of Lafourche.

The soil and surface differ in nothing essential from that of Orleans. The natural products are the same.

The two banks of the Mississippi are the only habitable part, and are highly cultivated. Sugar is the staple commodity. Cotton and rice are cultivated to considerable amount. So much unity of appearance and improvement exist upon the Mississippi, between Iberville and the English Bend as to render the description of one part that of all others.

Parish of St. Charles, or Bonnet Quarré.—Bounded E. and S. E. by the parish of St. Bernard; N. E. by lake Pontchartrain, and pass of Manchac; north, by lake Maurepas; and west, by the parish of St. John Baptiste. Soil, natural products, staple, and general aspect, the same as the preceding.

St. John Baptiste, or Cantrell's Parish.—Bounded S. E. and east by the parish of St. Charles; north, by lake Maurepas; N. W. by the parish of St. James, and S. W. by the parish of Assumption; soil, natural productions, and staple are nearly similar to the preceding.

Cotton is now more, and sugar less cultivated, than nearer New-Orleans.

St. James, or the Parish of Acadian Coast.—Bounded S. E. by the parish of St. John Baptiste; S. W. by the parish of Assumption; N. W. by Ascension; and N. E. by Amite river.

Though the New river runs through, and the Amite river forms part of the outline of this small parish, little or no land within it is yet cultivated, except the margin of the Mississippi. The banks of the Amite are here too low for settlement, but are bordered with excellent timber of almost all species, that grow in the

low land of the Mississippi. Here, first on the island of Orleans, begins to appear the *pinus taeda*; which tree is scattered along both banks of the Amite, considerably above Galvezton. To the species of trees enumerated in the foregoing parishes, may now be added, in large quantity, the *quercus tinctoria* and *quercus falcata*. This latter tree, in all parts of Louisiana, announces the transition from the recent to the more ancient alluvion. Advancing from the mouth of the Mississippi to Opelousas, the *quercus falcata* becomes more abundant. It is often found upon overflowed lands, but is there evidently out of the soil most congenial to its growth; and where the overflow exceeds twelve or fifteen inches, this tree no longer exists.

The *quercus virens* abounds upon New river, and is also plentiful upon the Amite. This invaluable timber is perishing rapidly in many parts of Louisiana; and in none more so than on the New river. Wherever the *arundo gigantea* exists, all the forest trees amongst which it grows, are liable to annual destruction by fire. The ruin that this comparatively small vegetable has effected in the forests on the Mississippi, and connecting streams, is great beyond belief.

Sugar and cotton may be considered the staples of the Acadian coast. Rice is cultivated, but not extensively.

The orange tree does not succeed well on the Mississippi above 30° N. lat. It is scarce above the church of St. Bernard, and in the parish of Acadian coast becomes very rare.

Parish of Ascension.—Bounded S. E. by the parishes of St. James and Assumption, S. W. by Atchafal-

aya, N. W. by the parish of Iberville, and N. E. by Amite river.

That part of this parish lying on the banks of the Mississippi, presents so perfectly the same natural and artificial features, with those of the Acadian coast, that all additional observation would be repetition.

On the right bank of the Mississippi, when receding from that river towards the Atchafalaya, the country is annually inundated.

This parish, though extending over but three hundred and fifty square miles, is remarkable for possessing almost every forest tree and shrub in the state of Louisiana, except the *pinus australus*, the *pinus rigida*, the *robinia pseud acacia*, and the *juniperus virginiana*. Forming with the parish of Iberville the link that unites West Florida to the bank of the Mississippi, and Atchafalaya; this contracted spot possesses an extraordinary richness of natural production. We will be more diffuse in sketching the various species of trees and shrubs, in the parish of Ascension, as the list will suffice for the parishes of Iberville, the Assumption, and the Interior of Lafourche.

Indigenous forest trees and shrubs.—*Nyssa aquatica*, *nyssa sylvatica*, *cupressus disticha*, *pinus taeda*, along the Amite; *quercus tinctoria*, *quercus virens*, chiefly on the Amite and New rivers; but it exists on the borders of all the streams in the parish; *quercus falcata*, *quercus lyrata*, *quercus aquatica*, *quercus alba*, *quercus phellos*, *quercus rubra*, *ulmus aquatica*, *ulmus americana*, *castanea pumila**; *ilex opaca*, *diospiros vir-*

* The chincapin tree vegetates on an immense range of Louisiana, and exists in great variety of soil. It is found on the border of the overflowed land, often more than a foot in diameter; but always of diminutive elevation compared to its thickness.

giniana, *salix nigra*, *juglans nigra*, *juglans amara*, *juglans porcina*, *juglans laciniosa*, *juglans myristicae formis* of Michaux, *juglans tomentosa*; the *fraxinus tomentosa*, *fraxinus americana*, *celtis crassifolia*, *magnolia grandiflora*, *gleditsia triacanthos*, *gleditsia monosperma*, *laurus sassafras*, *laurus caroliniensis*, *platanus occidentalis*, *liquid-amber styraciflua*,* *acer rubrum*, *acer negundo*, *populus angulata*, *tilia pubescens*, *morus rubra*, *carpinus ostrya*, *carpinus americana*, and *andromeda racemosa*.

The *arundo gigantea* grows in immense brakes in all parts of the parish of Ascension, not liable to annual submersion. Much of that majestic grass has been destroyed by the clearing of the lands; but a vast quantity still remains. Along both banks of New river, in the rear of the plantations on the Mississippi, and on the banks of the Atchafalaya, are the places where most of the *arundo* yet exists. Here, as well as in every other part of Louisiana, where the land sinks too low for the *arundo*, is found the *chamaerops louisiana*†.

* The sweet gum is perhaps the most universal tree in Louisiana; it certainly grows upon greater variety of soil, than any other tree in that country. Upon the highest hills, in society with the *quercus tinctoria*, *liriodendron tulipifera*, *pinus rigida*, and *quercus ferruginea*; and in the deepest swamps, admixed with *salix nigra*, *diospiros virginiana*, *nyssa aquatica*, and *cupressus disticha*; the sweet gum is found growing in vast numbers. On the border of the overflowed lands, and near the margin of the large prairies the sweet gum attains the full expansion of its column of matter.

† I have given to this vegetable the name of *chamaerops louisiana* in the text; and am of opinion that there is a specific difference between the *chamaerops palmetto* hitherto known to botanists, and that of Louisiana. The *chamaerops serrulata* of Muhlenberg is certainly not the same with the palmetto of Louisiana; the latter bears a much greater resemblance to the cabbage tree, though much more humble in elevation, than to the saw-leaved palmetto of Georgia.

The latter vegetable cannot itself exist, where the inundation exceeds in depth 15 or 20 inches. The land is commonly of the best quality. Much of the surface of the country upon the lower part of the Mississippi, now cultivated in cotton, maize, rice, and sugar, was originally covered with the palmetto. From the greater depression of the surface, the palmetto land is more difficult to reclaim, than that naturally covered with *arundo gigantea*; though equal in fertility when reduced to a state of cultivation.

The timber trees most usually associated with the palmetto, are, the *quercus phellos*, *quercus rubra*, *acer rubrum*, *acer negundo*, *liquidamber styraciflua*, *ulmus aquatica*, *cornus alba*, and *celtis crassifolia*. The *quercus tinctoria*, and *quercus virens*, are often found growing upon palmetto land, but not so frequent as the preceding. The *nyssa aquatica*, and *cupressus disticha*, would appear from their general history, to be congenial to the palmetto land; the latter tree is sometimes found intermingled, and the former growing on inundated land adjacent to, but neither are so commonly met with on palmetto land, as might be expected.

The palmetto may be correctly considered the vegetable that marks the limit of annual inundation. In all places where we have had good reason to consider the overflow annual, the palmetto ceased. Though able to resist partial and occasional immersion of its roots in water, we are led to believe this shrub would perish if the ground upon which it grew was subject to annual overflow.

The trees are usually covered with an immense quantity of vines, of many different species; amongst which, the various kinds of *smilax*, are the most remark-

able, and the *smilax rotundifolia*, (green briar) the most troublesome to those who have either to clear the land, or pass through these entangled woods.

Rivers, Lakes and Bayous.—That outlet of the Mississippi, which has received emphatically the name of Lafourche, (the fork,) leaves the parent stream in this parish, at $30^{\circ} 7'$ N. lat. and 91° W. long. from Greenwich; and seventy-five miles above New Orleans. The Lafourche, when leaving the Mississippi, is not more than eighty yards wide, and very little below the ordinary autumnal level of that stream. In some very extraordinary seasons, the Lafourche has been dried at its efflux; it is fordable nearly every year, in October and November.

The Lafourche, like the Mississippi, below Bayou Iberville receives no tributary streams; the bayous flow from it in all its length. Two bayous take their source near the efflux of Lafourche, one from each shore. Bayou Cabanosé, drains the angle between the Lafourche and Mississippi; receives tributary water from the parishes of St. James, St. John Baptiste, and St. Charles, and is finally lost in that chain of lakes that lies S. W. of New Orleans. Another bayou rises west of Lafourche, runs S. E. into lake Verret.

Lake Natchez lies along the N. W. extremity of the parish, and is the passage around the lower raft in Atchafalaya.

West of lake Natchez, a raft lies in the Atchafalaya, which obliges persons navigating in the river to leave its current, and pass by the lake. Two very small inlets unite the extremities of the lake with the river.

The entire space from the Lafourche to the Atchafalaya is annually inundated; consequently cannot be

considered of much relative value, except for timber, with which, as has been observed, it abounds.

Towns.—The thriving town of Donaldsonville, at the efflux of the Lafourche, is the first village on the Mississippi worth notice above New Orleans. The town has been laid out upon the Mississippi, below the discharge of the Lafourche, and extends down both rivers. It is now the seat of justice for the parish, and has a connecting post office, between the country in the south western parts of the state, and those parts that lie east of the Mississippi and Atchafalaya.

Parish of Assumption.—Bounded N. W. by Ascension, S. W. by Atchafalaya and lake Chetimaches, S. E. by the parish of the interior of Lafourche, and N. E. by the parishes of St. James and St. John Baptiste.

Every thing relating to this parish has been already noted; it will be sufficient to observe, that except the bank of Lafourche, but little surface in this parish can be cultivated. Some few settlements have been made upon Bayou Cabanosé, and some upon the banks of the small stream that unites Lafourche to lake Verret, but they are of limited consequence.

Sixteen miles from Donaldsonville, a small canal was many years past cut from the left bank of Lafourche, into a small creek or bayou, that communicated with lake Verret. Along the right bank of the canal a road has been opened. This canal and road now form the great thoroughfare to the Opelousas, Attacapas, and many other places west of the delta of the Mississippi.

A public ferry, from Lafourche to Teche, has been established by law, and has been for some years past very well conducted. Men, horses, and carriages, are carried through the chain of lakes with perfect safety. The mail is also conveyed weekly by this route, and seldom fails.

Parish of the Interior of Lafourche.—Bounded N. W. by the parishes of Assumption and St. Marys, N. E. by St. Charles and St. Bernard, east by the parish of Orleans, and south by the gulph of Mexico.

The wide extent embraced by this parish becomes of great importance, from lying within the sugar climate, and from the great proportion of its area capable of culture.

The natural productions, or cultivated vegetables, differ in no essential point from the preceding; therefore will need no recapitulation.

This parish is naturally divided into two portions, very distinct from each other. The first section consists of the wood land, upon the Lafourche and various bayous that flow into the gulph of Mexico. The second section is formed by that part of the great marsh prairie that lines the front of Louisiana. The latter division contains more than two-thirds of the superficial area of the whole parish. The sources of all the bayous that enter the gulph of Mexico between the Lafourche and Atchafalaya rivers, rise in the former and traverse the latter section in its progress towards their mouths. Before reaching the gulph, the entire outline of the parish sinks almost to the common level of the sea, consequently is uncultivatable.

Rivers, Bayous, Lakes, Bays, and Islands. The Lafourche has upwards of sixty miles of its course in this parish. Narrow and shallow near the Mississippi river, the Lafourche imperceptibly augments in breadth and depth; becomes, before reaching the gulph, a fine navigable stream, two hundred yards wide. There are at common tides about nine feet water on the bar, between the mouth of Lafourche and the point of Timballier island. The Lafourche may with propriety be

considered one of the inlets of Louisiana, and deserves the utmost attention in all arrangements that have either the defence or the improvement of that country for their object. The river, after the bar is passed, retains depth of water for any vessel that can enter, upwards of fifty miles into the interior. The banks are thence to Donaldsonville in all respects similar to those of the Mississippi.

The margin of the Lafourche is peopled, and the shores defended by levées far below tide water. When the Mississippi is high, and discharges a large mass of water into the Lafourche, the current in the latter, as in the former, continues to the gulph ; but in autumn, when the waters are low, there is then a marked difference between those rivers. The Mississippi always possesses water sufficient to overcome the tide, almost to the bars, of all the various passes through which the water of that great river reaches the sea. The Lafourche, like the Atchafalaya, when unaided by its parent stream, becomes stagnant, of course the tide flows a considerable distance into the interior from the river's mouth. Bayous D'eau Bleu, (blue water,) Derbane, Grand and Petite Caillou, Bayou Peau de Chevreuil and Bayou du Large, all rise in the wood section of the parish of the interior of Lafourche ; their courses a little east of south, nearly parallel to the Lafourche. Not having great descent, none of these streams have much current. The lands on their banks are excellent, and where sufficiently timbered and elevated, must become very valuable. Most of those lands remain public property ; and have been surveyed under the orders of the United States government.

The land watered by Bayou Black and its tributaries is still superior to the preceding, as offering a

larger proportional area of elevated alluvion on an equal surface.

The whole region comprised in the northern section of this parish, will form the most extensive sugar country, except the banks of the Mississippi, in Louisiana.

No towns or villages worth notice have yet arisen, or will soon arise on the lower part of the Lafourche. The improvements hitherto effected consist of sugar houses, saw mills, and other appendages to an agricultural people. The produce when made is generally sent to New Orleans market.

Parish of Iberville. Bounded S. E. by the parish of Ascension, north by Bayou Iberville, N. W. by the parish of West Baton Rouge, and west by Atchafalaya river.

Nothing interesting, respecting the soil and productions, either natural or exotic, of this parish, can be added to what has been detailed, when describing the parish of Ascension. Sugar and cotton are the staples: the latter encroaching upon the former in ascending the Mississippi.

Settlements—along the Mississippi, on both banks. In the space from the efflux of Iberville, to St. Gabriel church, the right shore has a marked superiority over the left, in quantity and quality of soil. Most of the best farms in the parish are on the former bank.

There exists reclaimable land sufficient upon the bayou Plaquemine, to admit culture. A settlement has been formed, chiefly upon the left shore of the bayou. The soil is equal to any in Louisiana; but gradually declines in elevation from the Mississippi, to the discharge of Plaquemine into Atchafalaya, where the surface is liable to inundation by the reflux water, from the swamps.

There is also a settlement upon the Iberville, but not extensive.

Towns.—Galveston is the only place in this parish yet known as a village; and though its situation is highly important in many respects, it remains of little consequence, consisting of a few ruined wooden houses. This town must in the progressive advance of Louisiana, become a place of note. Its situation gives it many natural advantages, that will in no great length of time be called into operation.

West Baton Rouge.—Bounded north by Point Coupée, east by the Mississippi river, S. E. by bayou Plaquemines, and S. W. by Atchafalaya river.

This parish so completely resembles the preceding, as to render further observation respecting its natural or artificial productions useless.

In neither of the three last described parishes do any towns or villages exist of consequence sufficient to demand notice in a general work.

Point Coupée.—Bounded N. E. by the Mississippi river, west by Atchafalaya, and south by West Baton Rouge.

This is one of the most wealthy and best cultivated settlements on the Mississippi. The inhabitants are fixed upon that river and Fausse Riviere.

In point of soil, timber, and other features of its physiognomy, Point Coupée bears a strong resemblance to Concordia; but is less liable to injury from the annual floods.

It is needless to recapitulate the forest trees of this parish; the list would be a mere repetition of those named under the heads of Iberville and Ascension.

The staples of this parish, are cotton, lumber, and sugar; the latter yet in very small quantity.

General sketch of that part of West Florida, included in the State of Louisiana.

This small tract is bounded on the east by Pearl river, north by 31° N. lat., west by the Mississippi river, and south by Bayou Iberville, Amite river, and lakes Maurepas and Pontchartrain; extending over 4850 square miles of surface. Soon after the incorporation of this part of West Florida into the state of Louisiana, it was divided into the four parishes of East Baton Rouge, New Feliciana, St. Helena, and St. Tammany. These parishes will be described under their respective names.

Few places of an equal area, can exceed this tract in local advantages. Its proximity to New-Orleans, renders it in many respects extremely well adapted to supply that growing city with numerous articles of daily demand and primary necessity.

The Rivers are—the Mississippi, Comite, Amite, Tickfah, Tangipao, Chifuncté, Bogue Chito, and Pearl.

The Mississippi has been sufficiently noted in the general description of that river, and need not be descended on more diffusely in this place.

The Comite rises in Wilkinson county, in the state of Mississippi, and after a course of forty miles, falls into the Amite, twelve miles nearly east from Baton Rouge.

The Amite river rises in the state of Mississippi, about twenty miles north of the town of Liberty, in Amite county. The two constituent streams of the Amite remain separate in their course through the state of Mississippi, but unite immediately after entering West Florida; and then pursuing a comparative

course of a little west of south, fifty miles, joins the Iberville, and turning thence east forty miles, falls into lake Maurepas. The whole length of the Amite exceeds one hundred miles. Below the junction of Amite and Iberville, the united streams form a fine navigable river, admitting vessels of six feet draught.

Ten miles N. E. of the forks of the Amite, and within the state of Mississippi, rises the Tickfah, yet a creek of trivial size when it enters West Florida; it then becomes gradually augmented by several creeks, and after a south course of fifty miles, falls into lake Maurepas, four miles N. E. of the mouth of Amite. Three miles above its mouth, the Tickfah receives from the east the united streams of the Notalbany and Pontchatoola; upon the latter stands Springfield, on the road from Madisonville to Natchez. Schooners from New-Orleans stop at Springfield; forming one of the landing places of travellers from New-Orleans to Natchez.

The Tangipao, though larger, has hitherto been less noted than the Tickfah. Rising in the state of Mississippi, between the waters of the Amite and Bogue Chito, the Tangipao runs nearly south seventy miles, falls into lake Pontchartrain ten miles N. E. of the pass of Manchac. This river having as yet attracted but little attention, few settlements, and none, indeed, of consequence, have been formed on its banks.

Chifuncté rises in West Florida, its whole comparative length does not exceed forty miles; but this little river is rendered remarkable from having the thriving town of Madisonville on its banks. The depth of water in the mouth of Chifuncté is greater than in that of either the Amite, Tickfah, or Tangipao. Any vessel

that can pass the Rigolets, can find a safe harbour, and sufficient water, in the Chisuncté, six or seven miles above its entrance into lake Pontchartrain.

The Bogue Chito has its source in the state of Mississippi, and pursuing a course of S. E. by south, eighty miles, enters the Pearl river twenty miles from the junction of the latter with the Rigolets.

The Pearl, a stream of much greater importance than the preceding, is the largest river between the Mississippi and the Mobile. The Pearl rises in the state of Mississippi, above 33° N. lat. runs S. W. seventy miles, turns a little east of south eighty miles, enters West Florida, and from thence in a south course of fifty miles forms the eastern limit of the state of Louisiana. The whole length of Pearl river, by comparative course, is one hundred and eighty miles. Many streams of considerable size beside the Bogue Chito, contribute to swell the Pearl; but its navigation being much impeded with shallows and timber, does not equal in facility of ingress, what might be expected from its column. Many spots of excellent land is found on the Pearl; but the country on its waters cannot be considered generally fertile; immense pine forests spread themselves on both banks, and reach within a few miles of the mouth of the river.

Before entering the Rigolets, the Pearl divides into several channels. Timber almost entirely ceases; and here commences that sweep of open marsh prairie that skirts the front of Louisiana, from thence to the Sabine. No doubt the alluvion of the Pearl formed the neck of land between lakes Pontchartrain and Borgne, as has the Tangipao, that between lakes Pontchartrain and Maurepas.

The tract between the Mississippi and Pearl, bordering on the delta of the former, is divided into two distinctive portions. The southern section, twenty miles wide and seventy long, is an almost unbroken plain, rising like the prairies of Opelousas and Attacapas, by a very slow acclivity, from its south to north extremity. This plain is covered in its whole length by a thick forest. The most remarkable trees are, the *liquidamber styraciflua*, *pinus taeda*, *pinus rigida*, *cupressus disticha*, *ulmus aquatica*, *acer rubrum*, *quercus tinctoria*, *quercus alba*, *quercus virens*, *quercus aquatica*, *quercus phellos*, *juglans amara*, *juglans porcina*, *nyssa sylvatica*, *nyssa aquatica*, *fraxinus tomentosa*, *salix nigra*, *celtis crassifolia*, *gleditsia triacanthos*, and *diospiros virginiana*.

Of the above trees, the *liquidamber*, *styraciflua*, and the *quercus tinctoria* are by far most abundant. The *quercus virens* is mostly confined to the borders of streams, and entirely disappears before reaching the northern extremity of the plain. The *cornus florida* abounds, as does also the *arundo gigantea*.

When approaching the Mississippi, the *liriodendron tulipifera* appears. West of Amite that tree is met with of large size; in the neighbourhood of Baton Rouge, it forms considerable part of the timber used at that place.

The laurel magnolia also abounds over the whole extent of this plain; but deserves less attention than most other forest trees, from the uselessness of its wood for most purposes to which other timber is appropriated.

The soil of this plain is of second rate quality, though alluvial; evidently owing its origin rather to the adjacent pine hills, than to the more fertile spoils

of the Mississippi. It is well adapted to maize and cotton, the usual crops yet cultivated. Some parts would suit the culture of rice; but hitherto that grain has been almost exclusively cultivated in Louisiana on the margin of the Mississippi, and lands analogous.

The second section is very nearly of equal area with the foregoing; but differs essentially in most other respects. The surface is broken, often considerably elevated, the soil diversified in quality; near the streams often fertile, but a much greater proportion covered with pine, (*pinus rigida,*) and sterile. Springs of excellent water become frequent, the creeks and rivers fine bold streams of very pure limpid water.

The common timber, *pinus rigida*, *quercus tinctoria*, *quercus falcata*, *quercus alba*, *liquidamber styraciflua*, *nyssa sylvatica*, *juglans porcina*, *juglans tomentosa*. Near the Mississippi, the *liriodendron tulipifera* is found of very large growth.

On Thompson's creek, on Bayou Sara, and on Alexander's creek, grow some few stems of the *acer nigrum*, or black sugar tree, very rare in Louisiana. The *cornus florida* is found intermixed with the other trees in all parts, excepting the higher pine forests. Many species of native *vitis* are met with in abundance; the most remarkable of which is the *vitis verrucosa*, or muscadine. The *arundo gigantea* cover the banks of the water courses, particularly the Amite and Cormite rivers, Thompson's creek, and Bayou Sara.

Cotton and maize are yet, and will in all probability remain, the common crops of this range. The land of the northern part of the parish of East Baton Rouge, and that of the whole parish of New Feliciana is amongst the best of southern Louisiana for cotton.

Tobacco might be also produced, but has happily been superseded by more useful vegetables.

The hill at Baton Rouge is the first eminence that appears on the banks of the Mississippi, above its mouth. The elevation at Baton Rouge has been most egregiously exaggerated. The distance from high water mark in the river to the level upon which the town and fort stand, does not exceed, if it amounts to, twenty-five feet.

The same hills that compose the bluffs on the Mississippi, below the mouth of Ohio, are only cut by the various streams; and form the western abutment of a vast expanse reaching from Georgia to the Mississippi. Baton Rouge may be said to occupy the southwestern part of this area.

The western border of both these sections is formed by the left shore of the Mississippi. In soil, timber, and cultivated vegetables, this part has in every respect a perfect resemblance to other settlements on the alluvion of the former river, therefore particular description is rendered useless.

New Feliciana.—Bounded north by the state of Mississippi; S. W. by the Mississippi river; south by East Baton Rouge; and S. E. by Amite river.

This parish is certainly one of the most favoured spots in Louisiana. The land is generally good; some is of the first rate, and but little sterile. The water and timber excellent. The natural productions have been noticed in our general view of West Florida.

Cotton, maize, beef, and pork, the principal staples.

Unlike those on the alluvial borders of the rivers, the settlements in this parish are scattered over the country as in the state of Mississippi. The farms are many of them of large extent. Though some other

articles are often produced and sent to market, cotton may be viewed as the great staple; it is made here of excellent quality. Few places in southern Louisiana present more desirable objects to allure to settlement, than the country between the Mississippi and Amite rivers.

East Baton Rouge.—Bounded North by Feliciana; East by Amite river; S. E. by Bayou Iberville; and S. W. by the Mississippi river.

Every object demanding attention in the commerce, agriculture, or natural production of this parish, has been anticipated in my general sketch of West Florida, and in the description of Feliciana. Those two last parishes have an entire sameness in their appearance and improvements.

St. Francisville, below the mouth of Bayou Sara in the former, and Baton Rouge in the latter, are the seats of justice and of the post offices in their respective parishes. Baton Rouge is considerably the most extensive, but is yet of no great size, containing perhaps three hundred inhabitants.

St. Helena.—Bounded north by the Mississippi territory; east by Tangipao river; south by lake Pontchartrain, pass of Manchac, and lake Maurepas; S. W. and West by Amite river.

Springfield, on a branch of Tickfah river, is the only town in this parish; it would not deserve notice from any other cause, than being a resting place on the road from Madisonville to Natchez.

St. Tammany.—Bounded north by the state of Mississippi; east by Pearl river; south by lake Pontchartrain; and west by Tangipao river.

For the natural products of those two parishes, we refer to our general notice of West Florida.

Staples—are cotton, neat cattle, beef, pork, hides, tallow, cheese, lumber, tar, pitch, and lime. Many other articles might indeed be enumerated, which are brought to New Orleans market; poultry of all kinds particularly.

Madisonville, opposite to New-Orleans, is remarkable, from standing on the best harbour for vessels in lake Pontchartrain. It is here also, that most persons are put on shore, when travelling from New-Orleans to Natchez by the route of the latter lake.

STATISTICS
OF THE
STATE OF LOUISIANA.

CHAP. IV.

ATTACAPAS AND OPELOUSAS; PRAIRIES; HILLS; FACILITY
OF INLAND NAVIGATION.

ATTACAPAS and Opelousas are so intimately blended, and so similar in their general topographical features, that I have considered it more suitable to precede their individual political subdivisions by a general description. The region included in these two places is so singular, having characteristics very different from other parts of the state of Louisiana, that I have been more diffuse in a general view, than on most of the remaining parishes.

Viewing a map of Opelousas and Attacapas, the most remarkable features in their geography are those prairies, naturally divided into seven grand divisions. The prairies Grand Chevreuil; Attacapas prairie between the Teche and Vermilion rivers; the large prairie of Opelousas between the Vermilion and Mermentau rivers; the Grand prairie which, commencing about eight miles north of Opelousas church, winds between the waters of the Teche and Courtableau ten miles north westwardly, then gradually turns to

the south between Bayou Cane and Bayou Mellet, and terminates above their junction; being thirty miles long. Next follow prairie Mamiou, Calcasieu, and finally the prairie between the Calcasieu and Sabine rivers.

Prairie Grand Chevreuil—commences between the overflowed lands of the Atchafalaya and the Teche rivers, and following the direction of the latter river, its northern extremity terminates eight miles east of Opelousas. This prairie being the high bank of the Teche river, seldom exceeds two miles in width, not often so much. That part of the prairie bordering on the Teche, is composed of a high rich margin of loam, extremely well adapted to the culture of cotton, tobacco, rice, Indian corn, and towards the lower extremity, the sugar cane. From the banks of the Teche, the prairie has an inclination towards the woods, that gives current to the waters which uniformly flow from the river. The Teche, like the Mississippi, has its bed apparently on a comparative ridge. After the prairie commences, the inclination of the plane continues, and depresses the surface so considerably, that in many places the overflow of the Atchafalaya enters the prairie, and in high freshes causes serious inconveniences to the crops. In the spring season of 1811, the water in many places, as at Mr. Durald's, penetrated the prairie within a mile of the Teche. Immediately on entering the woods on the N. E. side of the prairie, the mark of overflow is perceived on the trees. Timber along the rich margin of the Teche is generally composed of several species of hickory; sycamore, sweet gum, black oak, red oak, willow oak, red elm, mucilaginous elm, linden, laurel magnolia, sassafras, and below $30^{\circ} 15'$ N. lat. some live oak. The muscadine grape vine, and smilax are found entwined round those large forest trees. The cane, though not

of large growth, is found in the woods intermingled with palmetto. Many other trees are found of less note, such as the dogwood, red bud, and other dwarf trees. The holly abounds, and that singular tree called, perhaps capriciously, the prickly ash, from the conical protuberances on its bark, the inside rind of which has an acrid aromatic taste. There is found also the prickly sumach, so called from a short sharp thorn on its branches; from the end of the principal stem and branches a bunch of very fragrant flowers protrude themselves, which in the autumn are followed by soft pulpy berries, having much of the appearance, and taste, of the bark of the aromatic herb, found in the middle states, and denominated spikenard.

To those who ascribe deleterious effects from the proximity of stagnant water, the situation of persons living in prairie grand Chevreuil, will not appear very conducive to health. Time and experience has proven, that there is but little difference, in point of salubrity, between this prairie and those more remote from the borders of the inundation occasioned by the Mississippi. The fact being thus peremptorily asserted, so much in the face of prejudice, may need some illustration.

The lands that are inundated by the spring freshes in the low lands of the Atchafalaya, remain almost entirely devoid of water, on the retiring of the floods. No portion of woodland perhaps in America, is more completely without water in the fall season than this. Miles in succession of those regions, that have hitherto been supposed to be constantly submersed, are in fact, eight months of the year almost totally deprived of water, for the ordinary necessities of animal existence. This observation will be found circumstantially correct

in all the range that forms the western part of the Delta, for several miles from the prairies, or heights. Commencing at the Red river, and following the range of hills that separates the Delta from the low ground, you will experience a very great want of water, in autumn and winter. When the spring rains commence in aid of the water brought down by the rivers, and the low country is laid under inundation, the waters being fresh, from either the clouds or northern latitudes, are of course not in a state to generate much miasma. Before the summer heats are excessive, they have commenced their departure, and by the beginning of August have mostly subsided. This accounts satisfactorily for the health that often prevails in places which to the eye would appear unfavourably situated. The large lakes west of the Atchafalaya, are at too great distance to have much effect on the atmosphere in prairie grand Chevreuil.

No doubt but the small prairie called Prairie de Petit Bois, and the prairie on the Courtaleau at the efflux of the lower Teche, were once connected with prairie grand Chevreuil; but timber having gradually encroached on the prairies, has closed the communication.

Attacapas Prairie.—This great prairie lies between the Teche and Vermilion rivers, and is drained by the waters of the latter and Bayou Petite Anse, with some other small Bayous that run into the marshes along the seacoast. That particular feature in the history of Teche river, of its banks being the apex of a ridge, is strikingly proven by the current of the water on the west side, as well as east. From the mouth of Bayou Fusillier no inlet, except from the lagunes along the banks, and within one or two hundred yards distance,

enters the Teche. The plane assumes an immediate though gentle inclination, which drawing the water westwardly, throws it into the Vermilion. One effect, however, exhibits proof, how much the earth here approaches the surface of a real sphere. Lake Tasse, between Teche and Vermilion, discharges its waters N. W. directly in opposition to the Vermilion and Teche.

No tract of land on the globe, of equal extent, can exceed in fertility the margin of the Teche river, from the mouth of Fusillier to its own entrance into the Atchafalaya. The high cultivatable margin may be, at a medium, half a mile wide from the river outwards, but can, by the aid of drains, be augmented to any reasonable distance. By taking advantage of the natural drains, most of the prairie could be reclaimed. That this will be done progressively, as the price of lands increase, we cannot doubt. One remark may be made generally on Louisiana, that no country can afford more facilities to invite artificial improvement. Water, as an agent, when it can be commanded by human genius, either in the transportation of heavy weights, or in the operation of mechanics, will perhaps for ever remain the most useful servant of man. An eye cast on the map of Attacapas, will at a glance perceive the ease with which a canal can be drawn to unite the water of the Courtaleau, Teche, Vermilion, and Mermentau with each other and the Mississippi. That this communication will be opened, if the country watered by these streams remain in the hands of a free and active people, will not be doubted; and the very performance will secure the tenure to the then possessors. A numerous, happy and wealthy race of men would be found on spots now covered with grass and woods. But to return: The lands bordering on the Teche af-

ford but little timber on the S. W. side ; there is not found often any outside of the lagoon, and the space between that and the banks is about 100 yards. Below the Fusillier the timber is generally black oak, white oak, and live oak, with some sweet gum. The ridge without the lagoon is composed of an upper stratum of remarkable black friable loam, of a foot or eighteen inches deep, resting on an ochreous earth, of a reddish yellow colour. The plane reclines backwards into an earth, hard, soapy and more admixed with the ochre. The soil decreases in fertility, but is still what would in most countries be esteemed a very rich productive land. The sward of native grass is always heavy, and admixed with very luxuriant herbage, congenial to the soil. As this work has been undertaken, not from botanical motives, but to exhibit the capabilities for settlement in Louisiana, much detail relating to natural history will, of course, be avoided. A remark, which I have uniformly had reason to make, is that the timber is generally in much greater quantities, on the left side of the rivers and Bayous of Opelousas and Attacapas, than on the right. The prairie of Attacapas, from its commencement below the junction of the Teche and Fusillier, runs fifteen miles a little east of south, varying in width from one to three miles ; where it at once expands to upwards of twelve miles wide. The Bayou Tortue, or the outlet of Lake Tasse, affords but little timber ; but on passing west of it, you first from the Mississippi meet any considerable elevation of surface. Here the earth rises into bold promontories of forty or fifty feet in height.—Ascending to the summit of this elevated tract, you at once perceive a manifest change in the vegetation, and whether real, or from ideas associated with actual

elevation, a most salutary alteration in the air. This ridge will be noticed elsewhere. The Teche and Vermilion here recede from each other, the Vermilion assuming a S. W. course, which it preserves about twenty-five miles. The hills not being elevated from the general surface, but rather like an abbatis, presenting a precipitous front on one side, sloping away imperceptibly on the other. The waters that fall by rain in the prairies, either run into the Vermilion by its numerous inlets, or into the Petite Anse Bayou, which, running southwardly, falls into the Vermilion bay. The land along the margin of the prairie on the side of the Vermilion, is of an excellent quality for cotton, corn, tobacco, indigo, rice ; and below 30° N. lat. sugar cane would no doubt reward the planter for its culture. Though the soil is here of a very distinct species, and certainly not so extremely productive as that of the Teche, yet the same kind of farming would no doubt succeed. The lands on the Petite Anse and Bayou Salé, approximate to that of the Vermilion much more than to the Teche, though some springs of fresh water exude from the hills, yet not in quantity sufficient to afford water to the inhabitants, who resort to wells, which rarely have to be sunk fifty feet before water is found. Some good salt has been made, and no doubt could be manufactured in any given quantity, from wells sunk in a certain part of the Petite Anse hill, which rises from the marsh in the southern part of this prairie. The inhabitants of Attacapas are in great part supplied with salt at this time from salt works already constructed on the Petite Anse island.

This general description will answer for this prairie ; the map will exhibit its form to the eye. The coast between, and including the Atchafalaya and Vermilion

bays, is much the most important part of the coast of the state of Louisiana, west of the mouth of the Mississippi, and demands the most scrupulous attention, and will be particularly noticed in the sequel.

Opelousas Prairie.—This vast extent of natural meadow exceeds seventy miles, S. W. and N. E., is twenty-five miles wide, and contains more than 1,120,000 acres, exclusive of the numerous points of woods that fringe its margin on all sides, except along the gulph. This prairie begins thirteen miles N. W. of Opelousas church, and gradually opening to the southward, sends out various branches between the Bayous. Its east margin is a grand outline of soil and vegetation; along this border the lands are fertile, and considerably diversified in surface. The indigenous timber trees are the sweet gum, black oak, three species; white oak, four or five species; cypress, though scarce, sycamore, black walnut, ash, three or four species; poplar, elm, four species; maple, laurel magnolia in vast quantities; sassafras, honey locust, two species; linden, catalpa, holly and some others. The dwarf trees are the dogwood, iron wood, horn beam, black thorn, papaw (in the woods near the church of Opelousas,) elder, candleberry myrtle, towards the gulph; and many species of grape vines, saw brier, and other climbers.

In the woods to the west, or on the waters of the Mermentau, the poplar ceases entirely, and comparatively the linden and laurel; the magnolia also becomes scarce. The oak and hickory exhibit nearly the same varieties as on the east margin, with an exception respecting the large black oak, and the overcup white oak, which are not found in great quantity. On the waters of the Mellet and Plaquemine Brûlé, the pine is found in considerable bodies, and of very large growth.

When proceeding to the westward of the waters that communicate with the Vermilion, the soil becomes at once perceptibly more sterile, and the general surface of the earth more flat. In the bodies of the prairie between the Mellet and Plaquemine Brûlé; between the eastern and western branches of the latter Bayou; and between the Brûlé and the Queue Tortue, the lands are of a third rate quality. The surface of the earth is still more flat than on the east side of the prairies of course more wet. The gullies that drain the prairie, uniformly make points of woods, indenting the prairie, to one or two miles distance; in the vicinage of these points, the lands are generally of better quality, and always less liable to overflow than the residue of the prairie. Cotton, indigo, Indian corn, rice, and even tobacco, may be cultivated by using manure. No lands retain any artificial manure with more tenacity. The stratum upon which the mould rests, is a stiff brown clay, which resists the introduction of any body through it with great obstinacy; water cannot escape through it but slowly, and after depositing almost every foreign matter with which it is impregnated. After piercing this clay, you find a kind of whitish earth often mixed with nodules resembling iron ore, which is one foot or more in depth, and succeeded by a bluish clay, or red ochreous earth resembling in appearance and texture the clay that composes the banks of Red river. Bodies of a very pure sand is often found, but its existence is by no means uniform. The well water in this tract is generally good, seldom having any disagreeable smell or taste, but what is drawn from the wood that composes the walls of the wells. It is a felicitous circumstance, that in all the country comprised in Opelousas and Attacapas,

there is scarce any place but where well water can be procured, at no considerable distance from the surface of the earth. In most places the wells do not exceed thirty or forty feet in depth. The use of water hunters are not resorted to; Bretonic mummery is not necessary, every man may choose the site for his well as he would for his house, to suit his convenience.

Here you behold those vast herds of cattle which afford subsistence to the natives, and the inhabitants of the city of New-Orleans. It is certainly one of the most agreeable views in nature, to behold from a point of elevation, thousands of horses and cows, of all sizes, scattered over the interminable mead, intermingled in wild confusion. The mind feels a glow of corresponding innocent enjoyment, with those useful and inoffensive animals grazing in a sea of plenty. If the active horsemen that guard them would keep their distance, fancy would transport us backwards into the pastoral ages. When we estimate the extent of ground that must for ever remain covered with grass, it is no extravagant declaration to call this one of the meadows of America. Its extent affords some comparison with the empire to which it belongs, being in round numbers about an eight hundredth part. Allowing an animal to be produced annually from each five acres, more than two hundred and twenty thousand can be reared, and transported from this prairie alone, which at an average of ten dollars per head, would exceed 2,400,000 dollars. This calculation will, I know, appear extravagant, but is certainly not exaggerated beyond practicability; so much has nature done for a country, where even sterile lands are the sources of wealth, ease, and human happiness. The time is not remote, when the bacon and flour of the western states

will be repaid by the sugar, cotton, beef, and hides of Louisiana. The advantages resulting to the United States from the possession of that country, are every moment developing themselves.

The prairie below the 30° N. lat. except on the Teche, becomes extremely marshy, gradually sinks below the flow of the tide, and becomes impassable to man or beast. This frieze of marsh, however, runs along the gulph of Mexico, almost the whole length of coast that borders Louisiana; impenetrable except through the rivers. From the Pearl to the Sabine, the sea-coast cannot be reached by land from the interior in more than three or four places, all of which are west of Atchafalaya.

Grand Prairie.—This prairie begins eight miles north of Opelousas church, and running about fifteen miles N. W. is bounded on one side by the woods of Bayou Crocodile and Bayou Chicot, and on the other by the woods of Bayou Grand Louis. It then assumes a S. W. direction about twenty-five miles, having the woods of Grand Louis and Mellet Bayous S. E. and the woods of Bayou Cane on the N. W. and terminates a short distance above the confluence of the Cane and Mellet. This prairie is from two to five miles wide. The lands on the borders of the woods that communicate with the Teche and Courtaleau, are uniformly of better quality than those more S. W. The woods here afford all the variety of forest trees, dwarf, and climbers, mentioned in the account of the east side of the Opelousas prairie; like that prairie, the soil is extremely retentive of manure. It would be mere repetition to treat more largely of either the soil or natural productions of this prairie; the observations made on each head will apply to this equally with that of Ope-

lousas. It may be noted, however, that west of this prairie, the cane is found as high as $30^{\circ} 40'$ in the Bayou Cané woods.

Prairie Mamou.—On entering this prairie, you will at once perceive a great change of soil, vegetation, and in the physiognomy of the woods. Occupying the extent between the Nezpiqué and Cane Bayous, this prairie preserves the general course of those Bayous, and may be assumed at forty miles long, by five wide, without much danger of error. The soil is of an inferior quality to that in the grand prairie. The woods are composed of oak of almost every species, and pine, with underwood of dogwood and whortleberry. The laurel magnolia, linden, and other trees indicative of rich land, are rare. Towards the mouth of the Bayou Cane, cypress swamps abound on both sides of the prairie, particularly on the Nezpiqué. On the margin of the water that species of sassafras known by the local name of sweet bay, is found intermingled with the water elm, and other aquatic trees and shrubs. The *arundo gigantea*, or forest cane, dwindle here to a dwarf, and is but seldom found. In the low grounds near the river, the palmetto, called by the French *latania*, abounds, but not of the gigantic size of its kindred species on the more eastern waters. Some species of the laurel is found in the pine and oak woods.

The prairie Mamou is devoted by the present inhabitants to the rearing of cattle, some of the largest herds in Opelousas are within its precincts. Three rich stockholders have, as if by consent, settled their vacheries in three distinct prairies. Mr. Wikoff, in the Calcasieu prairie, west of the Nezpiqué, Mr. Fontenot, in prairie Mamou, and Mr. Andrus, in Opelousas.

prairie. These three gentlemen must have, collectively, at the moment this article is written, fifteen or twenty thousand head of neat cattle, with several hundred horses and mules. It may be presumed, that Mr. Wikoff is at this time the greatest pastoral farmer in the United States.

In prairie Mamou you encounter, in great numbers, mounts of earth, ten or twelve feet wide, twelve or eighteen inches high, scattered in immense variety over the whole plain. The origin of those hillocks have given birth to many speculations; all perhaps wide of the truth; the most reasonable hypotheses ascribe them to a kind of mole. These elevations are much more fertile than the other parts of the prairie, the high growth and deep green colour of the herbage, give to the prairie where they abound a singular and diversified appearance.

Though pastoral pursuits will, it may be presumed, occupy the attention of persons settling in prairie Mamou, from its remote situation in respect to markets and the sterility of the soil; yet it by no means follows that agriculture might not be pursued to advantage. The lands, though certainly very far inferior to those more eastward, are capable of great improvement. Excellent timber abounds for the uses of carpenter's work, and for enclosing farms. The oak timber, in reality, is much superior to that found on the borders of the Teche, and other rivers interlocking with the Atchafalaya. The tide flows up the Plaquemine Brûlé and Nezpiqué, far above the southern limit of this prairie. The rivers are deep, and might afford some navigation. When numbers and wealth will invite commerce into the Mermentau, some place near the mouth of Nezpiqué must become the seat of an ex-

tensive foreign and domestic trade. The quantity of cypress timber, and its superior excellence on the Mermentau and its branches, will afford great facility in building, when the current of emigration will bring it into demand.

Prairie Calcasieu.—This extent of grass is from N. E. to S. W. fifty miles long, and twenty miles wide, having more than 640,000 acres of land.

The soil along the east border, on the Nezpiqué, is of second rate quality, its surface is rather more waving than prairie Mamou. Along the Mermentau the prairie exhibits gentle swells, which relieve the eye from the dull monotony of the unvaried plain. The west margin of the upper lake in the Mermentau is a most beautiful slope, rising with gentle acclivity twenty or thirty feet, and falling by a more imperceptible declination into the general expanse of the prairie. Some handsome situations for building are found here. The lake upwards of a mile wide and more than six long, spreading under the eye, diversified with one or two small islands covered with trees, the interminable expanse bounding the view on all sides, except limited and relieved by the woods on the Mermentau to the north, or the small clumps of wood scattered in pleasing confusion in every other direction.

Below this lake, timber ceases on both sides of the river, which here swells to 400 yards wide, bordered by a very narrow bank of shells on one side, and the impassable morass on the other, having depth of water for large vessels. All possibility of settlement ceases. Twenty miles below the Little lake, following the stream, the river opens into another ten miles wide by twenty long. The channel less deep, and more uncertain. At the west extremity of this lake, the Bayou

Lacasine comes in from the N. W. The latter Bayou may be considered the drain of this prairie. Like the other prairies of Opelousas and Attacapas that are bounded by the sea, its marine extremity is an impenetrable morass, except through the rivers. The Lacasine has no wood on its banks, many miles above its junction with the lake; its channel is deep enough for large vessels. After wood commences, the adjacent prairie rises above the marsh. Some good soil is found, but not of large extent. The forest timber are oaks of several species, pine, ash, hickory, cypress, and tupeloo. The dwarf trees on the higher lands are dogwood, and whortleberry. The east branch of this Bayou remains navigable after the wood ceases. The other branches dwindle to gullies, on leaving the prairie. Not more than twenty or thirty families could be comfortably fixed on this Bayou. Most of the land remains to the United States, though three or four claims are surveyed on the east side. Between the Lacasine and the pine woods on the north, and the Mermentau river on the east, the face of the earth exhibits an expanse of grass, interrupted only by an occasional clump of oak or pine trees, that resemble isolated savages, trembling alone from age to age. After passing Lacasine, the same monotony again re-assumes dominion. The winds breathe over the pathless waste of savannah. The wild fowl is seen flitting, or the deer skimming over the plain. The clouds of heaven close the picture on the south; while fading in the horizon, the far seen woods, raise their blue tops between the prairie and the sky, in every other direction.

At any considerable distance from the woods, the land is sterile, and even near or in the forest, is of a very unpromising texture. I am led to think this

region healthy; not many of the causes that produce destructive miasma exist here. The truth of this position is proven by the few persons that have settled on either part of this prairie. Grazing will, it is most likely, be the prevailing pursuit of the inhabitants of this part of Louisiana. In almost every place west of the Teche and Vermilion woods, many inducements must operate to give that current to their employments. But as the population of the banks of the Mississippi increases in numbers, and creates an accumulated demand for beef, butter, tallow, hides, and cheese; shipments of those articles will be made directly from the mouths of the Atchafalaya, Vermilion, Mermantau, Calcasieu, and Sabine rivers. Salt can be manufactured to any amount, in many places near the coast; which will render that necessary article cheap. It may not be irrelevant to remark here, that nature and art will combine, to render the banks of the Mississippi the peculiar seat of abundance. The inexhaustible stores of provisions from the northern waters, combined with the boundless pastures to the west, give a facility and certainty of supply no where else found, in so eminent a degree, on our globe.

The Sabine Prairie.—Of this prairie little need be said. The land between the Calcasieu and Sabine near the sea shore, is very similar to the Calcasieu prairie; soil thin and extremely flat. The prairie diversified by clumps of that species of oak known by the name of black jack, intermingled with pine, both indicative of a sterile soil. The importance of this prairie will arise from its position, rather than from its intrinsic value, either as respects soil or timber.

Having thus closed this general view of the prairies of Opelousas and Attacapas, it will be necessary to

pass on to the delineation, of another less prominent, but not less important feature in their geography; that ridge of hills, which divides this region into two very distinctive portions. It will no doubt excite the astonishment of many, why so much importance should be attached to elevations, so very small above the general level, as the hills in question. To ignorance and pre-possession no explanatory observations can avail, and to the candid eye of science, none are necessary. The Andes or Alps do not make a more determinate outline than do the hills that are the subject of the present inquiry. Though humble in their comparative height, they designate a boundary perhaps coeval with our planet, and which will remain for an unlimited time a prominent feature in the physiognomy of our country. Civil and political boundaries, though often influenced by the grand distinctions of nature, are more frequently capricious; liable to change, and to be replaced by others equally subject to mutation. But mountains, rivers, hills, and other permanent features remain nearly the same, throughout the lapse of ages. The alterations occasioned by the agency of volcanoes, earthquakes, or even water acting generally upon refractory materials, are very slow. If the state of astronomical and geographical science, had enabled Strabo and Ptolemy to have clearly defined the lasting natural land marks mentioned in their works, it may be presumed that we would have no difficulty to recognize the same places, with very little alteration. Water is certainly the matter which, by its universality and motion, produce the greatest effects on the surface of our globe. The gravity of all solid bodies creates an un-deviating tendency to lower hills, and raise vallies, or

to speak more intelligibly, to make the earth more and more rotund. Rain, brooks, rivulets, rivers, and tides, are in hourly operation, to produce this effect.

The hills of Opelousas and Attacapas first begin to assume perceptible elevation at New Iberia, $30^{\circ} 3'$ N. lat. The point of land upon which the old Spanish works have been constructed, and from which the place has taken its name, is built upon its spur. Extravagant as the assertion may appear, it is a safe conclusion, that those hills are an extension of the mountains that give source to Red river and Arkansaw, and in fact, pervade the continent in its whole length. I must, from the nature of the subject, wander far beyond the limits of Opelousas or Attacapas in search of documents to substantiate the foregoing hypothesis. The reader will pardon the excursion, when he reflects that the digression aids a general view of our continent.

After detecting those hills at New Iberia, they are found at once to leave the Teche, and wind a little west of north, and in a few miles attain an elevation of twenty or thirty feet. The soil upon their summits is excellent, but without timber. Encountering the Vermilion, they are but little diverted out of their course, and beyond that river are again perceived in the Opelousas prairie, pursuing the same course, and having nearly a similar elevation. The fine settlement between the Côte Gélé and Carrion Crow is upon this ridge, the prairie totally devoid of timber, except along the margin of the Vermilion, below the limit of the hills. This description of surface continues until above the Carrion Crow; when the hills are, for the first time, covered with timber. That bay of the Opelousas prairie, known by the name of the Grand Coteaux, is part of this

ridge. It then forms the Belv^{ue} settlement, the settlement around Opelousas church, and continues northward; again meets the upper waters of Teche, at their efflux from Bayou Carron. Here the hills are extremely irregular in their height and direction, and covered with wood. The banks of the Courtableau, on the west side, at the Opelousas landing, again afford an opportunity of observing the tract, which continues along or very near the margin of the river, above the confluence of Bayou Boeuf and Crocodile. They then follow the direction of the Crocodile, through the wood land east of Grand Prairie, until the Bayou Chicot enters the Crocodile. It will now be necessary to return, and again following this ridge, notice some of the obvious consequences of its elevation and position, upon the physical conformation of the country. It has been observed, when treating of the prairie Grand Chevreuil, that the Teche flows along a comparative ridge; the earth gradually reclining from its banks. To account for the present situation of the country, between this ridge and the overflow of the Atchafalaya, it will be necessary to have recourse to fluviatic deposition—no other principle can solve the phenomena.

What was the original configuration of our planet, is a secret I presume wrapt in the womb of inscrutable obscurity. But correct observation upon the present situation of many places, affords ample means of estimating their ancient conformation, that only yield to actual demonstration, in the conviction they carry to the mind. We premise, that this work will afford few examples of hypothesis; their general emptiness is too well ascertained to render their repetition pardonable, but in the present instance, it is of importance

to possess some data to proceed from, in developing the present and future state of the surface of so important a section of our continent.

The assumption may be risked, that the ridge now under consideration, was at some remote period of time, much more elevated than at present. This conjecture arrays itself in the irresistible arms of truth, when we view the adjacent country on either side. No stone or pebbles are found admixed with the earth, to resist the action of water, in depressing the more elevated parts, and depositing them in the low grounds. From the aspect of the various small Bayous that run from the prairie Grand Chevreuil towards the Atchafalaya, their course is extremely serpentine. The Bayou Fusilier, that forms a part of the boundary between the S. E. parts of Opelousas and the N. W. parts of the Attacapas, and unites with Atchafalaya, is very winding in its course. That this should take place in a region where the surface of the earth is composed of such unresisting materials, can only rise from the supposition, that great changes have been effected in past times. The sediment gradually washed from the abutment of the hills, imperceptibly filled the slope between their base and the low grounds yet subject to annual submersion. That a much greater column of water once flowed along those bluffs, through the Boeuf, Crocodile, Courtbleau, and Teche, can hardly be doubted. The outlets that issue from the Courtbleau, such as Fusilier, could never have formed their channels in the present order of things. No water issues out of the Courtbleau into them, except in the spring floods, when the whole plain is under submersion. It is obvious, that in such situation, the water, so far from seeking a circuitous channel, would spread

itself through the woods. Time was when those channels, now dry eight months of the year, must have been replenished at every casual rise of the Courtableau. Their deep wide channels, unnecessary for their water at this time, aid the supposition. The slow current of the stream, as it now flows through them, would never have worn a channel of any kind: more particularly, one wide and deep sufficient to carry ten or twenty times the water that passes through them, at that time of the year when the Mississippi and Red rivers are low.

It is above human power to point out the changes that have taken place, since the time when this globe came fashioned from the hand of an Almighty Maker, who elevated the mountains, formed basins for the sea, and sunk channels for the rivers, and who, by his omnipotence, gave this earth its then form. But I may, however, be indulged in the reasonable supposition, that the elevated parts of the globe are primitive, rather than thrown up from its own bowels by any internal cause. Not one continent or island, but the globe in all its parts, produces demonstrative evidence of the anterior elevation of the earth, and its gradual decomposition, and removal by the abrasion of water. This cause has certainly contributed to widen the extent of land, and lessen the empire of water. The estuary of almost every river, creek, or Bayou, are eternal monuments to attest the fact. But alluvion, like all other causes, must, to produce effects, possess its concomitants; which, as respects alluvion, are particles that can be removed; water, an agent to remove them, and an inclined plane as a laboratory. The meanest capacity, which can reflect upon the subject, will be convinced, that, in cases of aquatic deposition,

the plane must hourly become less inclined, consequently a decrement of effect; this decrement continuing to operate, until the effect, if any, becomes so minute, as to remain imperceptible for ages. That the alluvion that formed the tract now under review, has undergone almost every stage of its progress, we have ample reason to conclude. The increase of soil, or change in the exterior of the earth, though still in minute operation, have, by the gradual assimilation of the earth to a sphere, ceased to operate, except in a very slow process. The Courtaleau, unlike most rivers, does not flow down the descent of an inclined plane, but diagonally across its surface. When the spring floods are at their height, the water that flows from the Atchafalaya crosses the Courtaleau. This fact, to which I have been often a witness, was one of the circumstances that led to the chain of thought, that has produced many of the conclusions detailed in this work. It is difficult to resist the induction, that the Courtaleau owes its existence to the same general cause that has operated to give the present appearance to the country from which it flows.

In periods of time beyond human skill to limit, the water of Red river must have flowed along those bluffs in large quantities. Sediment brought down, and gradually deposited, assisted in filling up the space, and finally, in a great measure, prevented the issue of water through this passage. The similarity of the clay banks of the Teche, with those of Bayou Boeuf and Red river, renders the foregoing supposition reasonable.

Bayou Grand Louis, issuing from the prairie of Opelousas, and Grand prairie, has contributed more towards influencing the present course of the Courta-

bleau, than from its column would at first view be thought possible. The whole valley made by this Bayou has been formed by the drain of the prairie. The Bayou Crocodile, above and below its junction with the Boeuf, preserves its ancient channel along the bluffs, until encountering the embankment made by Bayou Grand Louis, the waters are turned S. E. into Courtaleau, and forced to abandon their former and natural channel down the present Teche. At the very point where the Bayou Grand Louis leaves the hills, it divides into two branches, one turning north into Bayou Courtaleau, and the other winding about two miles along the bluffs, and then abandons them. This south branch, after running five miles, receives another outlet from the Courtaleau; the united streams forming the Teche. Below their junction, at the prairie Petite Bois, the banks have a perfect resemblance to Red river. The channel is greatly too large ever to have been made by a stream of water equal to what now flows through it.

If, as we suppose, the Atchafalaya was the ancient bed of Red river; and there is strong reason to believe the fact, the present Teche must then have been merely the upper outlet of Red river, and the present Courtaleau a counter channel, from one branch to the other. Many similar instances now in existence may be seen upon the map.

I have been more minute in the investigation of this subject, from a conviction, that the inquiry must lead to more rational ideas on the geological history of the country under review. It is a subject, unnoticed by any previous writer as far as I am informed. The reader will indulge minute and often even tedious detail, on a subject involving a knowledge, not of the

small tract of land under examination, but of all that long range of productive soil that stretches along the east side of the western bluffs of the Mississippi, from the gulph of Mexico to the mouth of Missouri river.

The extremely fertile flats, or rather slopes found along the White, St. Francis, Arkansaw, Ouachitta, Red, and Teche rivers, are to a very great degree analogous in their texture and appearance; and no doubt are susceptible of similar improvement. I may pronounce those lands to have been to a great depth below the present surface, the product of alluvion, and that in distant and remote time a large bay, reaching from the eastern to the western bluffs, penetrated the continent in the direction of the Mississippi. This bay has been filled above the ordinary level of the water, by accretion of soil. The whole delta bears evident marks of this revolution. But the slope along the western bluffs, being raised above not only the common level of the sea and rivers, but above the influx of the tide, and the highest annual flood must have acquired an addition of matter from some other store of materials, or has been elevated by other causes.

It is a singular fact, that the Mississippi in its long course, from the mouth of Ohio to Baton Rouge, washes the eastern bluffs; indeed from the mouth of Ohio to the sea, the Mississippi not once comes in contact with the western embankments of the valley through which it flows. From the ruinous appearance of the eastern bluffs, continually falling in fragments, it is evident the river is still slowly, but incessantly progressing eastward.

This curious fact is capable of an easy explication, from the single circumstance that all the large tributary rivers enter the Mississippi from the west, carrying with them clay and sand. This never ceasing process has tended to fill the western slope of the valley, and to confine the waters of the Mississippi to the eastern side.

During the autumns of 1807, 1808, and 1809, the writer had frequent opportunities to view the banks of the Atchafalaya at low water, which afforded the best chance of examining the different strata of which they are composed. The upper stratum is invariably of bluish clay, common to the banks of the Mississippi; this is usually followed by a stratum of red ochreous earth peculiar to Red river, under which the blue clay of the Mississippi was again to be perceived. The foregoing arrangement admits of but little variety.

This leads to a conclusion inevitable from the premises, that the waters of the Mississippi have alternately penetrated and deserted this channel. The Red river, when passing the western bluffs, (at very remote ages,) most likely did not unite with Black river. Red river itself, together with Bayou Boeuf, formed an embankment which irresistibly forced the channel eastward, and in process of time united with Black river. After such union, a very large part of the waters of Red river still continued to flow through the ancient channel, which in reality they do at this time, though not in large quantity, during very high floods. The Bayou Robert is the present connexion between Red river and Bayou Boeuf.

Bayou Boeuf and Bayou Crocodile are the two constituent streams that form the Courtableau river, and

both have their respective sources in the pine forests north of Opelousas: are fine streams of excellent water.

Bayou Boeuf rises in the parish of Rapide, about eighteen miles S. W. from the town of Alexandria; pursues a N. E. course of ten or twelve miles, enters the low lands of Bayou Rapide, which it approaches within one hundred yards, then turns E. and S. E. by S.; which latter course it maintains to its union with Crocodile. Bayou Robert, an ancient outlet of Red river, leaves Bayou Rapide two miles from Alexandria, and after a course of twelve miles nearly southward, falls into Bayou Boeuf. Three miles below Bayou Robert, Bayou Boeuf divides, discharging part of its water eastward, forming Bayou Le Mourier. The main stream continues to flow towards Opelousas, and three miles below the efflux of Le Mourier receives Bayou Clair from the west. Bayou Clair is the last accessory stream of the Boeuf; the remainder of its course is about sixty miles; its breadth is never much more or less than twenty yards; but much deeper, and having a larger volume than its humble breadth would indicate.

The Boeuf is by far the most beautiful stream that is found in Louisiana within the alluvial soil; its current is constant, though gentle; its water clear and pure. From the efflux of Bayou Robert to the mouth of the Boeuf, (following the meanders of the stream,) exceeds eighty miles; both banks a continued line of excellent land, once entirely covered with the large cane; the depth of arable soil about forty perches, often nearly a mile.

If cultivatable and wood land are both brought into the estimate, upwards of 100,000 acres of first rate

land is upon the banks of the Bayou Boeuf; timber near the margin, black oak, poplar, white oak, sweet gum, black walnut, red oak, and ash. The soil of Bayou Boeuf is peculiarly adapted to the culture of cotton.

Bayou Crocodile rises in the same hills with the Boeuf, and pursuing a similar course, has nearly the same length. The lands upon the heads of the Crocodile, being mostly pine forest, are generally sterile, though some good second rate soil is found near the water courses. Advancing towards the mouth, the area of arable surface augments, but in all its length the Crocodile presents a less valuable margin than the Boeuf. As a resource for timber for Opelousas and Attacapas, those two rivers are very favourably situated; much of the plank and scantling now used in the former place are already prepared at the saw mills on Bayou Boeuf, and transported down in boats or rafts.

The united streams of the Bayous Crocodile and Boeuf form the Courtableau; this fine little stream is about thirty miles in length and sixty yards wide, affording the outlet from Opelousas to Atchafalaya. Its relative position will be more clearly seen by recurrence to the map.

Between the Rapides and mouth of Red river, on its south bank, occurs the Avoyelle prairie. This singular prairie is about sixteen miles long, and three broad, lying upon a comparative hill, composed of nearly similar materials with the embankment opposite to it, west of the Bayou Boeuf. Fifteen miles to the south of Avoyelles another hill rises out of the swamps, extremely similar in its general appearance to the former. Both hills are about one elevation, fifteen or twenty feet.

Is not the deduction warrantable, that those hills

are two detached prominences of the same chain with the hills north of Red river?

They are now become elevated planes, though not reduced to such an undeviating level as the extensive prairies to the S. W. They are, indeed, allowing for the difference in soil and vegetation, more assimilated to the opposing pine flats. The relative position of those prairies or hills will appear upon the map.

Any further theoretical speculation is deemed needless here, as the foregoing hypothesis will be much better understood from a faithful delineation of the country on the map, than by any geological detail.

Woodlands are scarce along the right bank of the Teche, and will, no doubt, oblige the inhabitants, in process of time, to have recourse to planting and rearing forest trees. Much land, too wet for culture, and placed in situations beyond the power of drains, (except by great expense,) would perfectly suit many of the most useful species of timber, such as the ash, the bignonia catalpa, and many kinds of oak and hickory. The cypress, from its slow growth, will perhaps never become an object of culture*.

An acre of sugar cane will, in ordinary seasons, produce more than 1000 pounds of sugar; which, at a moderate price, will amount to more clear profit than any other product yet cultivated in Louisiana. But this subject will come more correctly under the head of agriculture.

* Judge Lewis, who is at present owner of the lands along the west bank of the Teche, immediately below the Fusilier, intends attempting the culture of sugar cane; should the laudable attempt succeed, the value of the banks of the Teche will then be more fully developed. As hinted above, the quantity of productive soil could be augmented by drains perhaps to 200,000 acres.

The rivers of Opelousas, and Attacapas are so connected, and the Prairies being common in most instances to both places, a separate general description cannot be made without confusion. The following outline of the rivers is traced without reference to the political divisions of the country.

Opelousas is bounded south by the gulph of Mexico; S. E. and south by the Attacapas; East by the Atchafalaya river; S. E. by the Parish of Avoyelle; North by the Parishes of Rapides and Natchitoches; and West by the Sabine river.

The greatest length of Opelousas is from N. E. to S. W. 150 miles; its medial breadth about 50 miles, containing a superficial area of 7600 square miles.

The principal rivers of Opelousas that are not common to Attacapas are the Courtaleau, Calcasieu, and Sabine.

Attacapas is bounded south by the gulph of Mexico, N W. by Opelousas, N E. by the Atchafalaya, and on the east by the Atchafalaya and the lakes appertaining to that river. The greatest length of Attacapas, is its base along the gulph of Mexico, about 115 miles from the mouth of Atchafalaya to the mouth of the Mermentau. From the mouth of Mermentau to the mouth of Courtaleau, is about 90 miles, and from the mouth of the latter river to the entrance of the Atchafalaya into the gulph of Mexico, the distance is nearly the same. Attacapas forms a scalene triangle, whose area amounts to 5100 square miles; the actual population (1811) (ascertained by the census of 1810) less than two persons to the square mile.

The principal rivers of Attacapas, are the Atchafalaya, Teche, Vermilion, and Mermentau.

The Red river enters the Mississippi at 31° 1' N.

lat. and $91^{\circ} 45'$ W. long. from Greenwich; and if we consider the Atchafalaya as the continuation of the Red river, it leaves the Mississippi three miles below.

From an attentive observation of the Atchafalaya during the autumn of 1808, 1809 and 1810, I am much inclined to give credence to the general supposition, that at some past time the waters of the Red river and Mississippi did not intermingle. The appearance of the banks of each river, the colour of the strata and their position, scarce leave a doubt that the Atchafalaya was at some remote period the continuation of the Red river.

The point of confluence of those two mighty streams is one of those singular geographical positions that cannot be viewed without astonishment. To behold the alluvial banks, and the willow and cotton tree forests so familiar on the Mississippi, nothing peculiar would strike the eye on a cursory survey of this spot. The reader will, on a review of the map, behold a chain of Bayous, the first link united by the Bayou Robert to the Bayou Rapide, and winding south of Red river, and the Avoyelle island, and united to the Atchafalaya by Bayou de Glaize. The banks of the Bayou de Glaize and the lake Pearl, out of which it issues, are high cane brake land, some feet above the annual inundation. This Bayou, or more correctly, its left bank, opposes an impassable dyke to the column of water brought down by Red river, Ouachitta and Mississippi throwing the accumulated mass into the chute below the mouth of Red river. The opposing bank of the Mississippi, in a similar manner, confines the water within narrow compass. The peninsula formed by the Mississippi, opposite the entrance of Red river, is generally above overflow, but a very small comparative

quantity of water, even at the highest freshes, crosses this point.

This assemblage of water, thus pressed into a passage not more than three miles wide, passes with great velocity. In some future day the government of the United States will become impressed with the importance of this spot. By pursuing the De Glaize and the intermediate ground between its banks and Opelousas, a road can be made at a very moderate national expense, that would unite the two sides of the Delta, and enable travellers or armies to pass every season of the year.

From the efflux of the Atchafalaya to Opelousas is thirty-six miles in a direct line, and the windings necessary for a road, would not exceed fifty miles; to which add fifteen from the efflux of the Atchafalaya to the high lands east of Mississippi, would amount to sixty-five miles from one extremity of the overflow to the opposite. The present circuitous route by water down the Mississippi and Plaquemines, and up the Atchafalaya and Courtaleau to Opelousas, is from one point to the other upwards of two hundred miles. Should the raft ever be removed out of the Atchafalaya, the distance from the efflux of the river to Opelousas down its current to the mouth of Courtaleau and up the latter river, will amount to seventy miles. A review of the saleable land claimed by the United States upon the tributary streams of the Atchafalaya, will more impressively exhibit the interest of the government in the improvement of this region.

The rapidity of the current of the Atchafalaya, and the quantity of water drawn by its efflux from the Mississippi, is almost inconceivable. The point between Red river and Bayou de Glaize is much deeper over-

flown than the height of the land would seem to render possible, and the column of the Atchafalaya very much augmented by the torrent that rushes over this peninsula.

During the spring freshes the water that runs out of the Mississippi, by the numerous lagoons or outlets below the Arkansaw, are received by the Bayou Macon and Tensaw rivers, and thrown first into Black river, then into the Red river, and finally returned into the Mississippi: but as if proud in the majesty of strength, this mighty stream no sooner receives this great accession of force, than it discharges the auxiliary waters into the Atchafalaya.

From the Arkansaw to the mouth of the Mississippi, the west bank of the latter river is an inclined plane, the bank of the river being higher than the lands adjacent. The point made by the De Glaize confines the plane to not more than three miles in width; but it expands directly below the junction of that Bayou with the Atchafalaya. The waters that leave the Mississippi by the efflux, and below the Atchafalaya on the west, never return to the parent stream. The numerous outlets between the efflux of Atchafalaya and the La Fourche, contribute to augment the former river. Below the mouth of the De Glaize, the Atchafalaya exhibits the same phasis with the Mississippi. The banks being too low to contain the body of water, it flows out mostly to the west, and forms on, a smaller scale, a similar region with that between the mouth of the Arkansaw and the mouth of Red river. The overflow west of the Atchafalaya, is generally about six miles wide from the De Glaize to within a short distance of the mouth of the river Courtableau, where the breadth begins to dilate; west of that overflowed

tract commences the cane brake lands of Bayou Rouge, Bayou Petite prairie, and those of the Courtaleau.

It may be remarked, that the extent of surface inundated by the spring floods, have been greatly overrated, particularly north of the Courtaleau. Some of the finest cotton land in Louisiana is found in places formerly supposed annually overflowed many feet. Brakes of the *arundo gigantea*, or great cane, cover, in the eastern parts of Opelousas, extensive tracts of land equal to any in North America.

In Pinkerton's Geography, printed in Philadelphia, the following sentence has found a place: "The swamps are at all times, even in the height of summer, for the most part under water, and are distinguished from the rest of the country by the crowded stems of the cane *arundo gigantea*. The light foliage of the tupeloo tree, *nyssa aquatica*, the taccamahaca, the fringe tree, and the white cedar, the *cupressus disticha*."—Vol. ii. p. 449.

The editor of Mr. Pinkerton's work here alluded to the swamps of the Mississippi, and as we are now treating the subject, it may not be irrelevant to make some observations on the page above quoted. From this statement, we would be led to conclude the land upon which the cane is found, subject to continual or partial submersion. Repeated observation has, however, proved that the cane is never the product of land subject to repeated inundation from the Mississippi floods. The margin of cane marks, with unerring precision, the line that separates the overflowed lands from those that have been by repeated efforts of nature wrested from the partial dominion of water. Cane,

though always found on very rich land, mostly black or sandy loam, near the banks of rivers, creeks, or lakes, cannot exist in water, and perhaps of all culmiferous vegetables, would flourish longest without rain.

The tupeloo is known in Louisiana by the popular name of olive, from its fruit bearing a resemblance to that of the well-known tree of the same name. The tupeloo, so far from being the product of the inundated lands near the Mississippi or Atchafalaya, is seldom found in those places. Amongst the cane brakes, or near their margin, the ponds or lagoons, replenished by water from rain, are the native and almost exclusive seats of the tupeloo. These lagoons generally become dry in the fall season, have little underwood, except the dwarf, called by the French Bois de Marais, (swamp wood;) which latter is in fact the largest bush or shrub found to exist with its roots continually immersed in water in Louisiana. The cypress (*cupressus disticha*) is a tree more congenial to the overflowed lands; but does not generally obtain the perfection of its growth, except in places very analogous to those that are natural to the tupeloo. These two species of timber are often found together. Upon the slope that declines from the eastern and western bluffs towards the Mississippi, the greatest quantity of the cypress of Louisiana is found. The land upon which the cypress grows is, however, at some season of the year, subject to immersion. This tree sometimes is found straggling along the margin of the cane brakes; but when the land rises above every kind of overflow, it becomes extremely rare.

Through the chain of overflowed lands that winds along the west margin of the Atchafalaya, the water

rises in general about six feet, sometimes more, varying with the partial elevations of the surface of the earth, and declining in depth towards the western bluffs. The Bayous that rise in the slope, and enter the river, uniformly protrude a line of high land almost to the river bank, giving the form of semicircles to the bays of the overflow, between their mouths. Every Bayou within the alluvial tract, is in miniature the Mississippi: winding apparently along the apex of a ridge, the land reclining from their banks, with outlets at high water, carrying the surplussage into the adjacent low grounds.

The Atchafalaya, from its efflux, has some land along its left bank, above overflow, which reaches about eight miles, where the bank becomes subject to partial inundation. The right bank, from a very short distance below the efflux to the mouth of the Bayou de Glaize, is liable to annual and deep submersion. Below the Glaize there is a narrow line of high land for seven or eight miles, when the right bank becomes like the left, subject to inundation, and is much more cut by the many outlets that carry the rising waters into the recesses of the swamp.

A general error has prevailed that the raft or body of timber that choaks this river, impedes the issue of water from the Mississippi. A moment's examination of the map will serve to remove this impression. The distance from the Mississippi to the head of the raft is twenty-seven miles, and the current of the Atchafalaya extremely rapid. By the inclination of the plane along which the Atchafalaya runs, and the irresistible impetus given to the stream by the peculiar assemblage of waters at its efflux, this river suffers no diminution

by the raft; but the bank for some distance aboye, and contiguous to this enormous mass of timber, is rendered much more liable to inundation.

From the great importance of the Atchafalaya as a channel of communication with some of the most valuable parts of Louisiana, and the singularity of this place, the reader will indulge a discussion of some length on the subject.

From the course of the Mississippi, above the efflux of the Atchafalaya, the incalculable quantity of trees that are annually brought down, are thrown mostly into the latter, whose efflux lies favourable to their reception. A small island which at the outlet points with some inclination into the Mississippi, aids the direction of the trees into the Atchafalaya, into which, when once ingulphed, they are borne down with a rapidity that sets every obstacle at nought.

It is now about thirty-nine years since the raft first stopped in the river*, and has been increasing ever since. The author of this sketch, who measured the banks of the river along the whole length of the raft, and some distance above and below, and had the opportunity of examining its contents three successive years, can vouch for the following facts.

The mass of timber rises and falls with the water in the river, and at all seasons maintains an equal elevation above the surface. The tales that have been narrated respecting this phenomenon, its having timber of large size, and in many places being compact enough for horses to pass, are entirely void of truth. The raft, from frequent change of position, renders the growth of large timber impossible. Some small wil-

* The Atchafalaya was first obstructed by timber, 1778.

lows and other aquatic bushes are frequently seen amongst the trees, but are too often destroyed by the shifting of the mass to acquire any considerable size. In the fall season, when the waters are low, the surface of the raft is covered by the most beautiful flora, whose varied dyes, and the hum of the honey bee, seen in thousands, compensate the traveller for the deep silence and lonely appearance of nature at this remote spot. The smooth surface of that part of the river, unoccupied by the raft, many species of papi-lionaceous flowers, and the recent growth of willow and cotton trees, relieve the sameness of the picture; even the alligators, otherwise the most loathsome and disgusting of animated beings, serve to increase the impressive solemnity of the scene.

“ Another Flora there of bolder hues,
“ And richer sweets, beyond our gardens’ pride,
“ Along these lonely regions, where, retir’d
“ From little scenes of art, great Nature dwells
“ In awful solitude. — — — ”

The rafts, as marked on the map, were their position in 1808; but no doubt will be found on any future examination much changed. Whether the raft can be removed, and the expense of the undertaking, if practicable, is yet unknown. The following estimate taken from admeasurement and observation on the spot, will give some idea of the quantity of timber, and the expense of its removal.

Ten miles of raft, multiplied by the width of the river generally, about 10 chains, or 220 yards, will give the following result:—35,848,000 superficial feet =286,784,000 solid feet=2,240,500 solid cords, allowing the timber eight feet depth.

The distance between the extremities of the raft is upwards of twenty miles, but the whole extent not being filled up by timber, the aggregate of ten miles was assumed as near the truth. The width of the river varies, but the medium breadth is about 220 yards.

How much it would contribute to the general benefit of the people of Louisiana, and of the western states, to open this river, is incalculable. From the proximity of some of the best public lands at the disposal of the United States' government, it has a concurrent interest in removing this obstruction to general intercourse and the facility of emigration. The Bayou Rouge and Petite prairie, whose entrances into the Atchafalaya are opposite to the raft, have each, particularly the latter, great bodies of most excellent lands along their banks. At a moderate estimate, there must be on those two Bayous and those adjacent, 60,000 acres of first rate public land. Many of the Bayous that enter from the east, flow through lands equally fertile with the west side; and it may safely be concluded, that not less than 100,000 acres of cane land are now rendered in a great measure useless, from the impediments to the navigation of the Atchafalaya. Boats from the western states, by entering the Atchafalaya, was it open, would have but very few impediments to encounter, to carry their cargoes to Opelousas and Attacapas; whilst those settlements along the Teche, where stave timber is scarce, could have their supply of an article so necessary in a sugar country, from the banks of the numerous streams that pervade the country above.

At the elevation of the spring floods, the back water of the Mississippi reaches up the Courtableau, above

the Bayou Derbane, as far as the confluence of the Bayous Boeuf and Crocodile, rendering the column in the Courtableau, towards Opelousas, a dead mass of water. Between the mouth of Derbane and the Portage near Opelousas court-house, in common years, there would be no difficulty in bringing up flat bottom boats. The depth of water in the Courtableau, nearly to its head, is at high water 18 or 20 feet, and in 1811, in the month of June, the depth opposite the entrance of Bayou Wauksha was 25 feet. The banks of the Courtableau, from Opelousas, gradually decline, and at the entrance of the Derbane, and from that place to its mouth are annually overflowed. The cane decreases in size along the margin of the river, towards the inundated lands, and ceases near its verge, and is succeeded by the Fan Palmetto or Latania. The Latania can only exist where the inundation leaves its branches out of the water; where the overflow exceeds the vegetable in height, it entirely ceases.

From the mouth of Courtableau to the head of the Cow island, the breadth of the overflow between the Atchafalaya, Opelousas, and Attacapas, is about eight miles wide. This space is an immense lake, for many months; the currents of the smaller Bayous are lost in the maze, and only remain distinguishable by the openings of their channels. The many lakes that mingle with the outlets of the river, and with each other, render this region most inconceivably intricate. It is with the utmost difficulty that the real channel of even the river can be distinguished from the number of outlets and inlets, that wind in every direction. The forest trees are indicative of an inundated country; such as swamp white oak, indented leafed red oak, bastard paccan, white wood, persimmon, cypress,

though not abundant, some species of the thorn, a species of the honey locust, and other aquatic trees. Below the head of Cow island, on spots along the margin of the river, (mostly on the right bank,) which are above overflow, the *quercus, sempervirens*, or evergreen oak, begins to appear; some of the candleberry myrtle fringe the shores with their deep green foliage and impurpled fruit; here also appears spots of cane, but of no great extent, the narrow selvage of high land quickly receding into the dead overflow.

To have an idea of the dead silence, the awful lonesomeness, and dreary aspect of this region, it is necessary to visit the spot. Animated nature is banished; scarce a bird flits along to enliven the scenery. Natural beauty is not wanting, the varied windings, and intricate bendings of the lakes, relieve the sameness, whilst the rich green of the luxuriant growth of forest trees, the long line of woods melting into the distant sky, the multifarious tints of the willow, cotton, and other fluviatic trees, rendered venerable by the long train of waving moss, amuse the fancy. The imagination fleets back towards the birth of nature, when a new creation started from the deep, with all the freshness of mundane youth.

From the efflux of the Atchafalaya to the mouth of the Courtableau, the general course of the former river is north and south thirty six miles, in a direct line; fifty-three by water along the river. Below the Courtableau the Atchafalaya runs S. E. twenty-five miles by a direct line, or about thirty along the river. Below the Cow island the river turns almost due east, runs about thirty miles in that direction, (to the entrance of Plaquemine,) following the sinuosity of the stream, though not more than eighteen miles, follow

ing the comparative course. Between the Courtableau and the lower end of the Cow island, the general current at high water crosses the river obliquely, rushing into the lakes towards the Attacapas. The river here winds diagonally over an inclined plane, and when the swell of the water rises above the banks, the water naturally flows down the direct slope. When the river assumes an eastern course, the current at high water is at right angles to the river. Within a short distance below the Cow island, there is a narrow slip of high land along the right bank cut into channels, called the Nine Brothers of Tensaw, which unite within a short distance from the head of the Attacapas lake, or lake Chetimaches. It would appear singular to any person to whom the cause was unknown, to find, on descending the Atchafalaya below the Tensaws, the yellow waters of the Mississippi insensibly diminish, and the colour of the water in the river assuming the dark green tinge of the swamp water. This phenomenon is occasioned by a Bayou, whose banks are high land clothed with cane, which comes in from towards the Fausse riviere, and enters the Atchafalaya a few miles below the lower Tensaw. The right bank of this Bayou throws the surplus water of the Mississippi S. W. towards Cow island, and contributes to augment the inundation at that place. From the Tensaws to the entrance of Plaquemines the right shore is, except the outlets, above inundation; the land on the bank is of the first quality, but too narrow to admit extensive settlement. Persons navigating, at extreme high water, from the Mississippi to Opelousas, or the upper part of the Attacapas, are obliged to sleep in their boats if benighted, between from about seven miles above the

Cow island to either the mouth of Derbane on the Courtableau, or to Bayou Fusilier Landing.

Where the Atchafalaya and Plaquemine form their junction, the united stream assumes a south course, which it maintains to the gulph of Mexico, the distance, by a meridian line, fifty-four miles, or about seventy miles, pursuing the river. A summary of all the distances gives the whole length of the Atchafalaya, by a comparative course, one hundred and thirty-three miles, and along the stream one hundred and ninety-three miles.

A description of the Atchafalaya from the mouth of Plaquemine to the Gulph of Mexico, would be mere repetition. The general phasis remains the same. The vegetable productions in similar places are nearly alike. Towards the mouth of the Teche the quantity of arable land is much increased, and will greatly enhance the value of the lower parts of Attacapas.

A single glance upon the map will convince every mind, acquainted with the geographical features of an alluvial country, that immense changes have taken place in the course of Red river. It will be noticed in a subsequent part of this work, that the Red river once washed the terrace of land that runs through the Parish of Rapide, and Opelousas, and Attacapas. The hypothesis that the river took this direction is strengthened by the peculiar manner that the river enters the Delta of the Mississippi. Viewing the proximity of the north part of the Avoyelle high land, to the opposing elevation north of Red river, the induction is irresistible, that the river acting upon the yielding materials of those hills, slowly formed a passage through, and joined the Black river, which latter must have contributed to the change.

The human mind is often inclined too much in favour of a pre-conceived, though deceptive theory, and receives as proof demonstrative what only amounts to probability. But after writing the article on the once greater elevation of the hills, and the changes made from their loose parts being carried down by the attrition of water, the author made a tour from Opelousas to the higher parts of the state of Louisiana, to ascertain the position of the rivers and Bayous, every step of which presented new proof of constant change convincing to his mind. The reiterated pains taken to establish the fact, proceeds not from the pride of theory, but the conviction that many salutary improvements in the navigation of this valuable region depend upon the demonstration of this change. It is of the utmost importance to convince the inhabitants of the state of Louisiana, or those persons inclined to become settlers, with how much ease they can render a vast column of water subservient to navigation; and that where the streams have ever flown, they can again be directed, either in whole or in part.

The distance from the western states to the gulph of Mexico, can be shortened an hundred and twenty-seven miles, by descending the Atchafalaya in place of the Mississippi. There is much less difficulty to encounter, in entering the bay of Atchafalaya, than in entering the Mississippi. The rapidity of the stream continues in the Mississippi to the ocean, while the tide checks the current in the Atchafalaya above the lake Chetimaches, and often to the great raft.

Nothing but the contumacy of custom can influence the inhabitants of Attacapas to neglect the advantages of their position, which in a commercial point of view certainly equals any other spot in Louisiana. Nature

has been more than usually beneficent to the Attacapas, the fertility of the land is excessive, and the facility of navigation is seldom exceeded. It demands comparatively but little from the hand of art, to complete the benefits of this favoured spot.

The singular manner that the Teche river issues from the Opelousas, opens a new field of improvement. About four miles and a half below the confluence of the Bayous Boeuf and Crocodile, the Bayou Carron unites itself to the Courtableau; two miles from the latter river, the Teche flows out of the Carron. When the waters are low the current of Carron enters the Courtableau, but in spring floods there is often a reflux in the Carron, which carries part of the Courtableau waters down the Teche.

By erecting a dyke and lock in the Courtableau, below the mouth of the Carron, the column of the Courtableau would be directed towards Attacapas, or flow in its ancient channel, at the command of man. Where the plane of the earth's surface so nearly represents the real curve superficies of a sphere, water is easily made subservient to canal improvement.

If ever the serious intention of realizing this attempt should be brought into agitation, no apprehension need be entertained against its practicability. From the great length of the two creeks that form the Courtableau, that river is not subject to any sudden rise, that would carry instantaneous destruction to works erected in its bed. The rise of waters, even when the Mississippi is low, is slow and gradual, and the waters would in reality flow in their new course with equal facility as they did in their present channel. The river here washes the primitive hills, which it aban-

dons for ever, at the spot pointed out for the lock; the hills then winding with the Carron. When the Mississippi rises, the waters of the Derbane and other Bayous, would form a reflux current, and supply a canal of standing water below the dyke. Boats in coming up would meet with no impediment more than at present.

Another dyke and lock at the mouth of the western Fusilier, would unite the navigation of the Teche and Vermilion. An abundant supply of water flows in the spring season from Opelousas, by the Bayou Bourbieux, to aid in a high degree the hand of art, on the Vermilion and Bayou Fusilier.

It is really an object upon which the mind dwells with complacency; the infinite number of natural canals, that every where pervade the state of Louisiana, near the sea coast and the margin of large rivers, running into each other like net work. Here art need only be directed by genius, and assisted by wealth, to lead to results on the future prosperity of the state, beyond the power of calculation. From the softness of the climate, and the fertility of the lands, many of the richer vegetable productions can be reared in abundance. Towards the gulph of Mexico, sugar, that most nutritive of all the gifts of nature, can be produced in any supposable quantity, to meet the demands of the western states. The late improvements on the use of steam, promise to remove the evils of encountering the current of rivers. Voyages, at no distant period, from the gulph of Mexico to St. Louis, or Pittsburgh, will be a matter of common notoriety, with vessels of any tonnage, suitable to the depth of water in the rivers along which the voyage is performed. The flour, and other northern productions, will

be exchanged for the sugar, cotton, rum, and indigo of Louisiana.

Places where similar facility is offered to improvement are almost innumerable, from the outlets that unite the Mississippi with Tensaw, Ouachitta, and Black rivers; as also with Red river, Atchafalaya, Fourche, and by the Iberville to lake Maurepas. A similar intermixture unites the Atchafalaya to the Courtableau, Teche, and Vermilion, at several points. Scarce a single attempt could be carried into execution, without producing an almost instantaneous remuneration from the increased value of the adjacent lands. By the sale of public property in the state of Louisiana, an extensive and numerous population will be planted within its limits, who must feel every stimulus to give themselves the full enjoyment of the munificence of nature.

Teche River.—This river, from its position, claims more notice from the political economist and geographer, than either its length or quantity of water would seem to justify; it enters Attacapas at its junction with the Fusilier, pursuing a course a little east of south twenty-eight miles, to New Iberia, where it has attained depth of water for vessels of considerable burthen. The tide flows thus far, but does not rise high enough to benefit the navigation considerably. The river now assumes nearly a S. E. course, and winding about forty-five miles, loses itself in the Atchafalaya. The distances here given are along the general course, the bendings of the river would extend the whole distance that the Teche winds through Attacapas, to more than 100 miles. When this river enters the Atchafalaya, it is upwards of 200 yards wide, and 20 to 30 feet deep. It may be noticed as a singular circum-

stance, that this river does not receive any tributary streams in its whole range through Attacapas: it may be further remarked, that the Teche never rises within many feet of the elevation of its banks, of course unlike the Mississippi; never overflowing the lands on its margin.

The great body of the present inhabitants of Attacapas, are ranged along the Teche. The rich emigrants that are removing, or that have removed to Attacapas, have generally turned their views towards the Teche. This current of emigration must continue whilst the lands are cheap, the superior excellence of which, and the climate, give them a decided preference over any other body of land of equal extent, west of the Mississippi.

The Teche, except when there has been a recent and very heavy rain in Opelousas, has but very little current. At low water in the fall season, there is no perceivable flow of water above the reach of the tide. It will not be a great departure from fact, to state the whole length of the Teche in Attacapas at one hundred and thirty miles, and the distance on each side, arable, at one mile in depth; this will give 166,400 acres of land, capable of culture.

The foregoing quantity of acres might be very much augmented by artificial drains, which, considering the invaluable quantity of the soil, will no doubt be carried into effect.

Vermilion River.—This river, like the Teche, has its source in Opelousas, and enters Attacapas at the mouth of Carrion Crow; it then runs south about sixteen miles, then winds to the west, and receives from the south the Bayou Tortue, continues west eight miles, passes the ridge of hills, (a ramification of

which winds along each bank, some distance,) and assumes a S. W. course, which it maintains twenty-five miles.

When the Vermilion enters the hills, it then appears to have augmented to a size sufficiently large to justify the title of river, though it has that appellation below the Carrion Crow. The tide in autumn is perceptible thus high, the current of the river at all times rather gentle.

After this river has completed its S. W. course, it then winds S. E. by S. twenty miles; the whole length of its comparative course in Attacapas being sixty-nine or seventy miles, but the distance, pursuing the windings of the stream, must exceed 100 miles.

The two vast prairies known by the names of Opelousas and Attacapas, extend themselves on each side of the Vermilion, through its whole traverse, from its entrance into Attacapas, to its egress into the gulph of Mexico.

Wood is much more abundant along the Vermilion than on the Teche, and though the soil may be inferior in fertility, it is nevertheless excellent, and the quantity greater, on an equal length of river.

There are certainly eighty miles of the banks of the Vermilion, which have an extension backwards of two miles, which affords three hundred and twenty superficial miles, or 204,800 acres.

This is by no means an exaggerated calculation for the productive surface within the bounds of the Vermilion and its tributary bayous. Some of the most beautiful settlements yet made in the Attacapas are upon this river. From the diversity in soil and elevation, there is no risk in giving the preference in beauty of appearance to the banks of the Vermilion,

over any other river in Louisiana, south of Bayou Boeuf.

If situations favourable to health, united to the most agreeable prospects, which are bounded but by the horizon, should be sought after; were taste to select sites for building, its research would here be requited, and be gratified by the breezes which come direct from the bosom of the ocean; fancy itself could not form a more delightful range than the Carrion Crow and **Côte Gélé** settlements.

On leaving the dead level of the Teche, or the almost flat extension of the Opelousas prairie, the eye is enchanted on finding its range of vision, which not unaptly might be compared to the waves of the ocean when a storm has suddenly subsided. If a bold extent of view can give vigour to the imagination; if the increase in the powers of intellect bear any proportion to the sweep of the eye; upon one of those eminences ought a seat of learning to be established: there the youthful valetudinarian of the north would, in the warm, soft, and vivifying air of the south, find his health restored, and his soul enlarged. Astonishing as it may sound to many, I do not hesitate to pronounce this, together with the general range of hills from Opelousas, as the most healthy and agreeable near the alluvial land of Louisiana.

The lower parts of the Vermilion, no doubt, will suit the culture of sugar cane, whilst the whole extent of its banks are well adapted to cotton and corn. Observations respecting the products will be found under the head of agriculture.

The Vermilion, by its union with the gulph, forms the natural communication of its inhabitants with the sea. The time is not far remote when many thou-

sands of people will exist on the shores of this river, the fruits of whose industry will be taken to market with much more facility than through the present difficult and circuitous route. The depth of water through the inlet into the Vermilion, will not admit vessels of very considerable burthen. How far the channel may be improved by human power, would be impossible to state at present; and whether the difficulty of entering not only the Vermilion, but every other river in Louisiana, can be considered an evil, in either a moral or political view, there is much reason to doubt.

Whilst war continues to distract and distress the world, the more the internal parts of our country are fenced by nature, the better. Perseverance will give skill to navigate all our rivers, whilst their shallow inlets and intricate channels will set foreign invasion at defiance.

The shell banks and deep morasses of Louisiana, have always been considered by the writer as a bulwark that will contribute to the safety and happiness of the people of the country they enclose. It is an incontrovertible fact, that from the mouth of the Sabine to the mouth of the Atchafalaya, not one spot is found where an army of a thousand men could land with its implements of war, and penetrate the interior, except through the rivers; and when the rivers are examined, it is felicitous to reflect, that a small body of determinate troops on their banks could, by choosing its ground, repel very superior numbers. Few places in the range specified could be traversed, (except through the bayous or rivers,) by any human power, without opening a canal through the fens that every where line the sea coast.

Mermentau River.—This stream may be with propriety, called the river of Opelousas, from which place it derives the most of its waters, and to which it is in great part confined. The Mermentau River, is formed from the united streams of the Nezpiqué, Plaquemine Brûlé, and Queue Tortue.

The Nezpiqué rises in the pine forest, on the northern border of Opelousas and nearly upon the 31° N. L ; and after receiving a number of creeks whose heads interlock with those of the Calcasiu River, Bayous Crocodile and Cane, it pursues a south course of about fifty-five miles, and unites with the Plaquemine Brûlé.

The lands upon the Nezpiqué, are generally thin. The northern part of its waters are drawn from a pine forest. Twenty miles below the source leaving only a narrow range of trees upon the banks of the stream, commences the prairie Mamou which continues to skirt its eastern bank, southward to the mouth of the Bayou. In a similar manner, does the prairie of Calcasiu spread from the western bank of the Nezpiqué extending from its mouth twenty miles northward, where the Pine forest commences. Many settlements are formed on the Nezpiqué, the inhabitants of which are generally devoted to pastoral pursuits.

Bayou Cane is formed from the stream properly so called, and Bayou Mellet. The Cane rises in the extreme northern part of prairie Mamou, and having that prairie upon its right bank in all its length, pursues a course of S. S. W. the grand prairie skirting its left bank about forty miles, where it terminates by the entrance into Bayou Cane of Bayou Mellet from the N. E. Below the mouth of Bayou Mellet, the Cane pursues a south course of ten miles, and joins the Pla-

quemine Brûlé, two miles east of the junction of the latter and Bayou Nezpiqué.

The Bayou Cane having a narrow selvage of woods upon its banks, is settled on both sides from its source to its mouth. Though the soil is of better quality for agriculture, and more undulating than that upon the banks of the Nezpiqué, most of the inhabitants on the Cane pursue a pastoral life. In the early establishment of the post of Opelousas, many of the richer stock-holders settled on Bayou Cane, previously to advancing westward to the Bayou Nezpiqué, where they or their representatives now reside.

Bayou Mellet has its extreme north-eastern source in the Opelousas Prairie, six miles N. W. by N. of the church of St. Landré. This stream flows about five miles S. W. over the open Prairie, enters wood land, and continuing a S. W. course of twenty five miles, is lost in the Bayou Cane. Grand prairie winds along the right and the prairie Mellet the left bank of this Bayou, leaving between the stream and prairies a narrow border of wood land. In point of soil and the ordinary pursuits of its inhabitants, Bayou Mellet differs little from the two preceding water courses, the Nezpiqué and Cane.

Bayou Plaquemine Brûlé, draws like the Mellet its highest north-eastern waters from the Opelousas Prairie, but the former rises only two miles west of the church of St. Lanch. The general course of the Plaquemine Brûlé is S. W. parallel to the Mellet, and about thirty miles in length. Another branch of Plaquemine Brûlé, rises in Opelousas Prairie fifteen miles S. S. W. from the church of St. Landré, flows S. W. ten or twelve miles, joins the main stream six miles above its mouth; leaving an embranchment of the

Opelousas prairie between them. This latter stream has been in some degree rendered remarkable, by having near its source the residence of Col. William Wikoff, the most wealthy stock-holder in the United States.

The soil and timber upon the Plaquemine Brûlé, are very similar to those of the other branches of Mermentau. The settlements are more compact, and the attention of the inhabitants more directed to Agriculture, on the Plaquemine Brûlé, than on the Nezpiqué or Cane. Many persons who reside on this stream have good farms, having meliorated their land by aid of manure. The rearing of stock may be however stated as the business of most of the residents; their proximity to the waters, which communicate with the Mississippi, having produced the few vegetable staples yet formed on Plaquemine Brûlé.

After the junction of the Bayous Nezpiqué and Plaquemine Brûlé, the united streams take the name of the Mermentau river; which pursuing a course of a little west of south about ten miles, with a medium breadth of 110 yards, receives from the east the Queue Tortue.

This Bayou claims attention as forming in its whole length part of the boundary between Opelousas and Attacapas. It has its source in the Opelousas prairie $30^{\circ} 15' N.$ lat. Its course is generally a little south of west; its length by comparative course twenty-five miles, but with the Bayou perhaps thirty-five. This Bayou enters the Mermentau about two miles above the Little lake, and ten miles below the junction of Plaquemine Brûlé and Nezpiqué.

The lands on the Queue Tortue are of very inferior quality to those on the Vermilion; the timber consists of various species of oak, hickory, some ash, and

other forest trees; and towards its mouth large cypress and tupeloo swamps. Like all the western parts of Attacapas and Opelousas, the lands on this bayou will always be devoted to grazing. The sterility of the soil will for a length of time arrest extensive attempts in agriculture.

The Opelousas prairie sweeps along both sides of the Queue Tortue, and to the south of this bayou, recedes into the morass of the gulph of Mexico.

Two miles below the entrance of the Queue Tortue the Mermentau river dilates into a lake, commonly called Little lake, of from one to two miles wide and six miles long. The timber now ceases upon both banks, and an entirely open prairie bounds the prospect in every direction. At the lower termination of Little lake, the Mermentau river is again contracted into a stream of about 300 yards wide, which by a very serpentine course of twelve miles, is again merged in another lake of much greater extent than the preceding. West of where the Mermentau enters the latter lake, extends a bay into the northern extremity of which Bayou Lacasine is discharged; this bayou is noticed in the general view of the Calcasiu Prairie.

The large lake of Mermentau is ten miles in length from north to south, and eight miles in breadth east and west. A few low marshy islands chequer its surface, whilst the general monotony of its shores are relieved by clumps of live oak. The borders of the lake are however totally unfit for settlements. Except a few narrow and very slightly elevated ridges upon which the live oak stand, and some scattering mounds of shells, the whole adjacent country is morass, or low prairie.

From the S. W. part of the Large lake, the river

again flows, now exhibiting a stream of about 500 yards wide; sometimes dilated to the appearance of a lake, it pursues a course of very near S. W. thirty miles, and falls into the gulph of Mexico, over a shallow bar of, at low tide, not more than four feet water. Within the bar, and uniformly where the Mermen-tau assumes the form of a river, there is an ample depth of water for vessels of any draught; but both the smaller and larger lakes are equally shallow with the outlet of the river into the gulph of Mexico.

Twelve miles west of the mouth of the Mermen-tau the Calcasiu river discharges its waters into the sea, by a mouth of 300 yards in width, with, at low tide, four feet water on the bar. The longest branch of Calcasiu rises in the Parish of Natchitoches, at $31^{\circ} 30'$ N. lat. and very nearly south of the town of that name on Red River. Another shorter, but very considerable branch of the Calcasiu, rises in the Prairie Llana Coucou, and pursuing a southern course of about seventy miles, unites with the main stream in nearly a western direction from the church of St. Landré in Opelousas. A third branch, considerably less than either of the preceding, rises at 31° N. lat. runs south thirty miles, and falls into the west side of the main river twenty miles below the second branch.

These three branches are the constituent streams that form the Calcasiu river; many creeks, but of little note, mingle without adding any quantity worth attention to the body of water that flows down its current.

There is a peculiarity perceptible in the Calcasiu, that distinguishes it from any other river in Louisiana, or perhaps on earth; its waters with very partial exception enter from its right bank. The main stream rising in the parish of Natchitoches, runs S. E. twen-

ty miles, enters the Parish of Rapides ; six miles within which enters from the North, the Bayou Cypriere mort (Dead Cypress.) Below the mouth of the Cypriere Mort the Calcasiu assumes a south course for a short distance, then inclines to east of south, but within a few miles resumes a south direction passes the 31° N. lat. gradually inclines S. S. W. which course it maintains to its entrance into its great Lake. In this distance it will be seen that below the Cypriere Mort, only two inconsiderable creeks enter the Calcasiu from the east. The general form of the space watered by the Calcasiu river above the great lake, is that of a semi-ellipse, the curve being represented by the principal stream, and the chord or subtense, by the various sources of the different branches.

Below the junction of the S. W. branch, the Calcasiu flows S. W. twelve miles, and dilates into a small lake about a mile square. This is commonly called the little lake of Calcasiu. The great prairie between the Mermentau, and Calcasiu rivers, usually denominated the Calcasiu Prairie, commences ten miles north of the junction of the two main branches, and leaving a very thin strip of wood land between its verge and the river's bank, first reaches actual contact with the Calcasiu at the Little lake. Two creeks have their source in this prairie, one of which enters the river a short distance below the mouth of the S. W. branch, the other falls into the Little lake. These latter streams deserve notice, only as having upon the land they drain, except one house on Little lake, the only settlements of whites, yet made on the Calcasiu river. The soil upon these two creeks is of better quality than that of the larger water courses to the N.

W. as well as more contiguous to the other settlements in Opelousas.

Below the little lake timber begins to become scarce, and within the distance of five miles, nearly ceases on the river. Copses of trees are seen at a distance, which in some places approach the bank. Timber, mostly oak and pine. The stream is extremely serpentine, frequently dilated into small lakes. The banks are generally morass, though some places are elevated twenty or thirty feet, and afford a pleasant appearance. Before reaching the great lake, these eminences entirely cease, and the shore becomes uniformly low.

Twelve miles in a direct course from the little lake, commences the great lake, and here wood entirely ceases on the Calcasieu river. A shell bank which lies along the lake to the east of the river, affords a shrubbery of the *Robinia Pumila*, (dwarf locust,) the last trees that grow upon the margin of this lake or river.

The great lake of Calcasieu is thirty miles long, with a breadth of 8 or 9 miles, at an average, though in some places ten or twelve miles wide. This lake is very shallow, not having at low tide more than three feet water. The banks are seldom marshy, though never more than four feet above low tide, and at high spring tides often overflowed.

The river again flows from the lake in two outlets, which unites three miles below their efflux, and continue in one stream to the gulph of Mexico, which they enter at $29^{\circ} 36'$ N. lat. The bar at the mouth of the Calcasieu is four feet at low water.

The country from which the Calcasieu flows, may be correctly called a pine forest. No river in Louisiana presents so little variety of either soil, surface, or ve-

getable production. On the margin of the prairies, to the south, oak and other trees are found, and near the streams some cypress swamps occur; but the greatest part is an expanse of pine woods.

The Sabine will be described in Chap. V.

Carrión Crow—rises in the Opelousas prairie, not far from the head of the *Queue Tortue*, and pursuing an opposite direction; in all its length, forms a part of the boundary between Opelousas and Attacapas. From the point where the woods first commence on this bayou, to its mouth, is not more than ten miles. The excellence of the soil, in some measure compensates for the shortness of its course.

There must be at least forty sections of land on this bayou, capable of being immediately cultivated, without the necessity of being drained, which amount to 25,600 acres, at 640 acres to the section. But little of this is yet under cultivation, though some good farms are found along both sides of the woods, and are annually increasing.

Bayou Fusilier.—That branch of the Vermilion that comes from Opelousas, is known by the name of the Bayou Bourbé, by the inhabitants, and after leaving the hills, divides into two channels, one of which winding south, unites with the *Carrión Crow*, and forms the Vermilion, the other winds east and unites with the Teche, under the name of *Fusilier*.

This small bayou, not more than four miles in length, would merit no attention in a system of geography, if it did not form a limit between the two portions of country, Opelousas and Attacapas. It is further illustrative, how near the country here approaches the real curve of a sphere; the water, as if balanced, scarcely can determine its course.

This Bayou must not be confounded with another bearing the same appellation, and indebted for their names to the same person; the eastern Fusilier is in reality a stream of much greater importance than the one now treated of.

It has been observed, when speaking of the Courtaleau, that it flows diagonally over an inclined plane. When the spring floods have filled the swamps with water, and when the Courtaleau becomes replenished beyond its capacity of retention, it is, (though on a smaller scale,) similar to the Atchafalaya; its redundancy being carried off by an indefinite number of outlets from the right bank, that mostly lose themselves in the waste of the woods.

Some narrow outlets, whose channels are of considerable depth remain perceptible at low water. Bayou Fusilier is one of those outlets, which, having its efflux from the Courtaleau about two miles below the Derbane, pursues a south course about twelve miles, extremely serpentine in its windings, and approaching the prairie Grand Chevreuil within a short distance, turns east towards the Atchafalaya, and finally loses itself in the intermixture of lakes that enchain that river on the west side. When the bayou Fusilier assumes its eastern course, from prairie grand Chevreuil, its meanders become still more serpentine; its width never exceeds sixty or seventy feet, yet this is the channel of communication with the Mississippi from some of the most flourishing parts of Opelousas and Attacapas. Not a single spot of land on the banks of this bayou can be rendered secure from the annual overflow of the swamps by the Atchafalaya; and it is a lasting monument of a revolution in the range of waters through this region. It would not only be impro-

bable, but impossible, that water could, in the present state of the country, form a determinate course in this place. At the elevation of the spring floods, the swamps are entirely filled with water, and all the small bayous are lost in the universal inundation; whilst in autumn the valley is devoid of water, except comparatively in a stagnant state.

A fact which may not be irrelevantly related here, will suffice to show, how slowly changes in the face of nature are effected by water.

Above the efflux of the Fusilier, and nearly opposite the Derbane, the marks of overflow are at the distance of a mile from the bayous, four feet high on the trees; yet there are in this dreary waste, six or seven of those little mounts, or barrows, found over almost all America, and the north of Europe and Asia.

In the year 1803, when first discovered by the author, their summits were still sufficiently elevated to be beyond the reach of overflow, and covered with timber, indicative of high land; such as black oak, sassafras, and ash, but more particularly three different species of vegetables were found, never known to occupy lands subject to annual immersion, viz. black gum, holly, and the muscadine grape vine. The latter, like the large cane, though found near the margin of the inundated lands, is never found within their limits.

Those mounts are about seven or eight feet higher than the water mark on the trees; and are scattered to some distance from each other, without regular arrangement.

The alluvial lands on the Teche are six miles distant, most of the intervening space liable to inundation. The spot where the barrows are found is a

cypress swamp, a drain of which passes the space occupied by those sylvan towers. One of the smallest of them is broken by the action of the water. When we reflect upon the length of time necessary for such piles of earth, after their erection, to assume the antique form they exhibit at present, and to cover themselves with timber suitable to their exemption from overflow; the seeds of which timber must have been translated casually from a considerable distance; we are struck with the conviction, that many ages past the adjacent country was nearly in the same state that it is at present. Many theories concerning the causes or intent of such monuments, are much weakened by the situation of those now treated of.

Not even a village of savages could have existed throughout the year, within several miles of this place. The spot where they are situated, is more dreary and sunken, than most other parts of the adjacent swamp. There is much reason to doubt the correctness of the opinion, that those elevations were erected for either temples or dwellings; the probability is much greater, that they were cemeteries raised on the field of battle, containing the bones of the ancient warriors of Louisiana.

Human pride has every where erected monuments to perpetuate the crimes, follies, and miseries of mankind; monuments, themselves, perishable as the hands that built them. Whether the marble of Greece, the porphyry of Egypt, or the clay of the Atchafalaya; time sinks them all to eternal ruin. The pyramids of the Nile, and the barrows of the Mississippi, attest alike, the weakness and evanescence of human greatness.

The water which flows from the slope of the Teche, enters the bayou Fusilier; and at the landing place,

receives another branch from the southward; which also rising east of the Teche, drains a part of the prairie of Grand Chevreuil.

Southwest of the Teche, a number of small bayous rise, and flow into the Vermilion and Atchafalaya bays. The most remarkable of these streams are, the Petite Anse, Bayou Cypriere Mort, (dead cypress,) Bayou Carline, Bayou Salé, and the Myrtle Bayou. Some good arable land lies upon the Bayou Cypriere Mort and Bayou Salé, rendered more valuable, as being within the climate suitable for sugar cane. The intermediate space between those water courses, like other parts of the coast of Louisiana, is morass.

The area contiguous to lake Chetimaches is an entire overflow. The banks of Atchafalaya, from the mouth of Plaquemine to Berwick's bay, afford very little surface not annually submerged. Opposite Berwick's bay, a prolongation of the high land of Teche, reaches the right bank of Atchafalaya, and skirts that river about six miles, where the overflow of the sea commences. Another range of alluvial highland protrudes itself to the left bank of Atchafalaya, on the east side of Berwick's bay. This latter strip of land is the bank of Bayou Boeuf. Here the waters of Atchafalaya, are compressed into the breadth of the river. The Teche on one side, and the Boeuf on the other, turning the overflowed surplus into the main stream; out of which it does not again escape, until the whole mass is lost in the gulph of Mexico.

This fine country as described, is now divided politically, into three parishes.

Attacapas—formerly composed one parish, by the name of St. Martins; but is now divided into two, St. Martins and St. Marys. -

St. Martins.—Bounded N. W. and N. by Opelousas; N. E. and E. by Atchafalaya; S. and S. E. by the parish of St. Marys and by the gulph of Mexico.

St. Marys.—Bounded N. W. and N. by St. Martins; E. by Atchafalaya; S. E. by the Interior of Lafourche; and S. W. by the gulph of Mexico.

Towns.—There are none of considerable extent in Attacapas, St. Martins, on the west bank of the Teche, in the parish of the same name, is the largest, containing perhaps 100 houses. New Iberia also, on the west bank of the Teche, and in the parish of St. Martins, is of little consequence, though most agreeably situated on a commanding scite.

Concerning the natural productions of Attacapas, little need be given distinct from Opelousas. The *Quercus Virens* is the only tree of great value found in Attacapas, and not in Opelousas. This timber grows in all parts of Attacapas, where other wood exists; but is very rapidly submitting to destruction.

Sugar, in the lower parts of Attacapas, is, after cotton, the principal staple. Every other production, either natural or artificial, is so nearly the same with those of Opelousas, that a reference to that article will afford every information given on the subject in this work.

Opelousas.—Parish of St. Landré, bounded E. by Atchafalaya river; S. E. by Attacapas; S. by the gulph of Mexico; W. by the Sabine river; N. by the parishes of Natchitoches and Ocatahoola; and N. E. by the parish of Avoyelles.

Few spots on the globe of an equal extent, exhibit more diversity of surface, or a greater variety of soil and vegetable production, than does Opelousas. Every forest tree found in southern Louisiana, except a few

species, exist in Opelousas. Here are beheld all the changes of soil, from the deep fertile loam of Bayou Boeuf, to the sterile pine woods; from the broken hills of Bayou Crocodile, Calcasieu, and Sabine, to the Marsh Prairie on the gulph of Mexico; and from the deep and almost impervious woods along Atchafalaya, to the widely extended plains that open their vast area, upon the banks of the Mermentau and Calcasieu rivers.

Opelousas presents four natural divisions, that differ materially from each other. The alluvial tract on the N. E. extremity, though the least extensive, is by far the most valuable of the four sections. The pine woods occupy the N. W. and cover one half the whole parish. The prairies commence where the alluvion terminates; and running in a S. W. direction, cover about one-third of the area of the parish. The sea marsh forms the fourth section, and may be considered the extension of the prairies, with the surface sunk by gentle declivity to a level with high tide.

So much has already been given respecting Opelousas, that little remains to add on that subject. Every plant and shrub cultivated generally in Louisiana, have been introduced, or attempted in Opelousas. If we except sugar cane and the orange tree, most valuable vegetables have succeeded. Cotton, indigo, and tobacco have been, and the former now is, the staple commodity of the country.

The settlements begin on the alluvion of the Courtableau, Boeuf, and Teche; but are numerous and compact on the region contiguous to the above, but within the prairie tract. The land in both these sections is excellent, timber abundant, and very large.

The ridge of hills that divides the alluvion from the prairie, affords considerable variety of soil and surface.

This ridge rises abruptly from the alluvion, but sinks by an imperceptible declination to the S. W.; gradually becomes more broken, advancing through Opelousas to the N. W.; and about the sources of the Crocodile assumes a very rugged aspect. Continuing its course through the state of Louisiana and province of Texas, this continuous ridge connects with the Taous mountains. The principal stream of Opelousas is the Sabine, next follows the Calcasieu, Mermentau, Courtableau, and Teche, with their confluent waters. All these rivers, except the Sabine, have been noticed.

Natural Productions.—The forest trees of Opelousas on the alluvion are, *quercus tinctoria*, *quercus rubra*, *quercus phellos*, *quercus falcata*, *quercus lyrata*, *quercus macrocarpa*, *populus angulata*, *liquidamber styraeiflua*, *nyssa sylvatica*, *nyssa aquatica*, *cupressus disticha*, *fraxinus tomentosa*, *celtis crassifolia*, *salix nigra*, *tilia pubescens*, *liriodendron tulipifera*, *magnolia grandiflora*, *magnolia glauca*, *laurus sassafras*, *laurus caroliniensis*, *bignonia catalpa*, *ulmus rubra*, *ulmus americana*, *ulmus aquatica*, *gleditsia triacanthos*, *cerasus virginiana*, *cerasus caroliniana*, (Laurier almond of the French,) *castanea pumila*, *platanus occidentalis*, *ilex opaca*, *juglans nigra*, *juglans amara*, *juglans porcina*, *juglans myristicaeformis**, and the *diospiros virginiana*.

Of dwarf trees, the most common are the *cornus florida*, *cornus alba*, *carpinus ostrya*, *carpinus americana*, *vaccinium stamineum*, and *laurus benzoin*. Immense brakes of the *arundo gigantea* cover the banks of all the streams near the hills. This fine vegetable ceases in advancing towards Atchafalaya, and is suc-

* On the Upper Teche, within this tract, was found the only stem of the *juglans cathartica* I have ever seen growing in any part of southern Louisiana.

ceeded by the *chamaerops Louisiana*; which in turn is followed by the clambering *smilax*.

Near the banks of all the streams where the *arundo* exists, grow also great quantities of the *phytolacca decandra*, (poke,) *sambucus rubra*, *morus scabra*, and *rubus fruticosus*, vegetables peculiarly indicative of a fertile soil.

The *vitis verrucosa* seems to have found a soil extremely well adapted to its organization. The greatest quantity of that vine that perhaps exists in any spot of equal extent in America, is between Opelousas church and the hill of Bayou Rouge. The *vitis laciniosa*, and *vitis riparia*, overhang the streams. Several species of dwarf trees, and shrubs of little consequence, might swell this catalogue, but I trust, what is presented, will suffice to give the reader an enlarged idea of the great variety and importance of the vegetable productions of this remarkable spot.

On ascending the hills from the foregoing tract, an important change is at once perceived; now are seen the *juglans squamosa*, *juglans porcina*, *quercus ferruginea*; and advancing to the waters of the Mermen-tau, the *pinus rigida* insensibly increases in quantity.

The *liriodendron tulipifera* now entirely ceases, the *juglans nigra* and *populus angulata* become rare. The woods have an entirely different aspect; the *arundo gigantea*, and *chamaerops Louisiana*, are superseded by the *vaccinium stamineum*, *vaccinium arboreum*, and other shrubs usually found on thin soil.

The prairies vary with the sections to which they are attached. In the N. E. they partake the fertility of the alluvion; on the N. towards the pine forests, the soil of the prairies differs but little from that of the

adjacent woods. The S.W. prairies are flat, and have much of the character of the sea marsh. It is indeed difficult to point out where the line of demarkation between the prairie and marsh exists.

The specific term of Pine Woods was given to the N. W. from the *pinus rigida* forming the greatest part of the timber; but on the banks of most of the streams the pine is admixed with other trees, the most common species of which are *quercus tinctoria*, *quercus phellos*, *quercus alba*, *nyssa aquatica*, *liquidamber styraciflua*, *diospiros virginiana*, *fraxinus tomentosa*, *juglans porcina*, *juglans aquatica*, and the *laurus sassafras*. The *cornus florida*, and *cerasus caroliniana*, with various species of *vaccinium*, mingle themselves amongst the more majestic trees.

On the different creeks are many spots of good second rate land, but like the neighbouring prairies, this pine region invites rather the pastoral than agricultural emigrant.

In brief, the relative pursuits of the inhabitants of Opelousas will no doubt preserve their present form. Those near, or on the alluvion and adjacent parts, will continue to cultivate a soil that is not in many other places either equalled or excelled; whilst in the distant prairies and pine forests, the sterile soil will compel the retention of cattle as support and staple.

The advance of population will at length induce the people to turn their attention to the rivers that intersect Opelousas, and withdraw a portion of their commerce from its present channel.

Pitch, tar, and turpentine, might be made in any given quantity; neither has yet been attended to, by the inhabitants, to an amount worth notice.

The staples of Opelousas at this time, are cotton,

cattle, hides, tallow, cheese, beef, and pork. It has been disputed which of the two former yields the highest revenue on the same labour and capital. This question must remain without solution; so much depends upon local position, that no decisive data exists to render the contrast satisfactory.

It is no doubt, however, much more facile for new settlers to commence a pastoral than an agricultural establishment. The land suitable to the former being of much less value than that necessary for the latter.

There are few persons, whose capital puts it in their power, but will prefer the certainty of agriculture to all other pursuits whatever. Perhaps some individuals could however be found in Opelousas, who unite more than ever was done elsewhere; the three natural stages of man's progress, hunting, tending their flocks, and ploughing the glebe.

I may terminate these remarks upon Opelousas, by pronouncing it deserving, in a high degree, the eulogy pronounced in the motto to this work upon all Louisiana.

STATISTICS
OF THE
STATE OF LOUISIANA.

CHAP. V.

NORTH-WEST SECTION OF THE STATE; GENERAL VIEW;
SOIL; CLIMATE; PRODUCTIONS; PAROCHIAL DIVISIONS.

THE Sabine river* has obtained more attention from becoming the temporary boundary between the United States and the Spanish internal provinces, and part of the permanent western limit of the state of Louisiana, than it would be entitled to claim from the magnitude of its column, or the fertility of its shores. This river discharges itself into the gulph of Mexico, in $29^{\circ} 23'$ N. lat. and in $93^{\circ} 57'$ west from Greenwich, $16^{\circ} 57'$ W. from Washington city. The depth of water at the mouth of the Sabine, is not more than four feet on the bar, at ordinary tides. The mouth of the river is wider than could be expected from the quantity of water it discharges into the gulph of Mexico.

No prospect can be more awfully solitary, than that from the mouth of the Sabine. A few trunks of trees

* The Sabine river, as described in this chapter, includes matter not connected with the N. W. section of the state of Louisiana; but I considered that it would render the subject more perspicuous, to give an entire picture of the Sabine under one point of view.

thrown on shore by the surf of the sea, and scattered clumps of myrtle, are the only objects that arrest the eye, from the boundless expanse of the gulph, and the equally unlimited waste of prairie. No habitation of man appears in view to cheer the voyager. No herds grazing on the green plain, recall his domestic sensations. The deep solemn break of the surge, the scream of the sea-fowl, the wind sighing mournfully through the myrtle, and a lone deer bounding along the shore, are the only objects that vary the monotony of the scene; the only sounds that interrupt the awful silence of this remote region. In the language of an elegant and interesting writer, it is one of those “unbounded prospects, where the imagination is not “less oppressed than surprised by the greatness of “the spectacle. The mind, distressed, seeks on every “side in vain for an object on which to repose, finds “only a solitude that saddens, an immensity that con-“founds*.”

Ascending the Sabine, about twelve miles from its mouth, the river expands into a wide shallow lake, of ten or twelve miles wide and twenty-five long, with a bearing N. E. and S. W. At the northern extremity of this lake, enters both the Sabine and Nétchez. At their junction with the lake, these two rivers are nearly of the same width, about 300 yards. A line of sea-shell banks are found along the shore of the lake, between the Sabine and Nétchez. On the point on the left shore of the Sabine, an immense mound of those shells are found, covered with dwarf trees, which serve as a land-mark in coming up the lake, to point out the real entrance into the river. Except a few scatter-

* *Abbe Barthelemy.—Travels of Anacharsis.*

ed trees on the margin of the lake, the prospect continues to present an expanse of marsh prairie, not more than four feet above common high water. Ascending fifteen or twenty miles above the lake, timber begins to appear in larger bodies, the land rising by a slow gradation. The first wood found is pine along a creek coming in from the N. W. which enters Sabine at 30° 3' N. lat. A very wide range of high prairie stretches to the N. W. from the mouth of the above creek, terminating the prairies on Sabine. The woods now enclose the river on both banks. The stream becomes contracted to 150 yards wide, which dimensions it preserves, with not much variation, as high as the Quachatta villages, where it shrinks to not more than 70 or 80 yards in breadth, and continues nearly the same size as high as 32° of N. lat. A few miles below the Indian villages, the Sabine is encumbered with a raft of timber of a mile and an half in length. When the waters are high, an outlet from the right bank, leaving the river at the higher extremity of the raft, conducts into a small creek that enters the river below. Canoes only can pass this outlet, its channel being at all times too small and shallow for large boats. Fifteen or sixteen miles below the raft, the Wau-ca hatcha, or Cow Tail river, falls in from the west, the last stream of any consequence that enters Sabine from either bank.

Ledges of rocks and hills of considerable elevation now present themselves frequently along the right bank. Those hills rest on a basis of blue friable sand-stone, arranged in very regular strata*; their apex and slopes are generally clothed with pine, beech, various species of oak, ash and hickory; dogwood abounds, and dwarf cane often mingles itself amongst the most

* The floetz formation of Werner.

gigantic vegetables. The soil is thin, and almost universally of a yellow ochreous tinge. The left or east bank is uniformly lower than the right or western, the high land but seldom reaching the river.—The great range of pine forest, that occupies the space from the prairies of Opelousas to Red river, winds along the Sabine. The general surface of this region rises by very gradual elevation from the prairies into hills of considerable height.—The principal range of those hills pursues nearly the same course with the Sabine. Twenty or twenty-five miles distant, it divides the waters that flow into Red river and the Calcasieu, from those that flow into Sabine. The creeks that are formed from the western slope of these hills, lose themselves in the latter river before coming to any considerable size, whilst those flowing from the eastern declivity below $31^{\circ} 30'$ N. lat. quickly intermingle and form the Calcasieu river.

This ridge of hills now becomes extremely broken, occupies nearly a medium distance between Red and Sabine rivers. Some spots of good productive soil, but not of great extent, are found on the creeks that enter the Sabine on the east. Pine and oak compose the prevailing timber.—The surface of the earth is clothed in spring and summer with an abundant herbage, that renders the country excellent for pasturage.

Though springs are found within the region above noticed, they by no means abound. In general, the creeks are produced by the rains that fall in such abundance in Louisiana during the winter. In summer and autumn these creeks cease to flow. Many of the creeks, however, that fall into the Calcasieu, some of those that enter Red river, particularly in the settlement of Bayou Pierre, and many creeks of the

Sabine, are fine streams of excellent ever-running water.

A singular fact, in the natural history of the state of Louisiana, respecting water, may not improperly be introduced in this place. There are many spots where the most pure limpid water flows in abundance, and a few miles further, without the least perceptible change in the configuration of the country, springs disappear, and the vallies become the mere drains of the hills in time of rain.

Although the Sabine has been known to civilized man upwards of a century, its sources have not yet been ascertained with any degree of certainty. The Panis or Towiache Indians have their village on Red river, at 97° W. lon. and $35^{\circ} 20'$ N. lat. The 32° N. lat. intersects the Sabine at $94^{\circ} 05'$ W. longitude, distant from the Panis village upwards of one hundred and sixty miles in a direct line. A ridge of hills winds along the south bank of Red river, near the Panis village, discharging the water southwards, towards the gulph of Mexico. The streams near the village are supposed by some to be the sources of Sabine, but from the diminutive column of that river, where it passes 32° N. lat. it is extremely improbable it can draw its sources from so great a distance.

The general range of the rivers would indicate the neighbourhood of the Panis as the sources of the Trinity, which is not even so well explored as its neighbour the Sabine. Data being wanting for the precise place from which those two rivers have their sources, they are drawn upon Mr. Melish's general map, agreeable to analogy, with their size and course in places where they are known with precision.

Little more need be expressed respecting the physi-

ognomy of the country, the vegetable productions, or soil of the Sabine; so much monotony prevails in the objects of nature, animal and vegetable, that the description of one place is the model of all others in this region.

No settlements of any civilized people have yet been made immediately on the Sabine; if we except that of a family residing at the spot where the road from Natchitoches to Texas crosses the river. Some recent establishments, however, have been made on some of the creeks on the east side, by some Americans, and by Spanish refugees from St. Antonio and Nacogdoches, in the late revolution in the internal provinces. The country bordering on this river may be yet considered a wilderness, particularly the western slope.

The Nétchez, or western branch of Sabine, is formed from the united streams of the Angeline, Attoyéaqué, Nana, and the Attascocito. These streams drain the semi-ellipse formed by the Sabine. Occupying a wider surface, the Nétchez, though more humble in length, equals, if it does not exceed the Sabine, as it respects quantity of water. Nacogdoches, at N. lat. $31^{\circ} 27'$ W. long. $94^{\circ} 17'$ stands on the Arroyo de la Nana, in a beautiful, healthy, well-watered country. The pre-sidio of Nacogdoches, formerly Assinaye, was formed by the Spaniards under Don Martin Delacorne, in 1716*. This small town, and a few farms in the vicinity, are the only improvements made in this quarter by the Spanish emigrants after the revolution of a century. The small tribe of Indians called Nadacos, resides about thirty miles north of Nacogdoches, upon the head waters of the Angeline; where they were found about a

* La Harpe

century past by the French and Spaniards. The Ná-dacos are a poor inoffensive race, in peace with all their neighbours, both white and red.

The lands watered by the Nétchez and its tributaries, are of superior quality to the country on Sabine, but deserve, nevertheless, the character of sterility, when compared with the margin of many rivers in Louisiana. The prevailing timber is oak; pine becomes more rare west than east of Sabine; a great extent is occupied by the jack-oak barrens, so often found in North America.

In advancing towards the sources of the Nétchez and Sabine, the country insensibly becomes prairie, of a harsh dry soil, broken surface, with herbage of a dwindled appearance. In spring and summer those plains are covered with herds of deer, buffaloe, and the non-descript animal called the ibex or mountain goat by some, by others, the mouflon or wild sheep of Europe and Asia, by others the gazelle, and by others the antelope*.

The next great feature in the geography of Louisiana, advancing either eastward or northward from the Sabine, is Red river.

The idea so generally received, that Red river receives but few accessory branches, is extremely erroneous. The valley of Red river is indeed confined, when compared to many others of much more humble length. From the sandy hills, or Chippewan mountains, near Sta Fé, where Red river commences rise two other streams, not considerably inferior, the Blue river and False Ouachittá, which after winding several hundred miles in the same direction, join Red river, between

* See note to page 35.

98 and 99° of W. long. The united stream continues some distance S. E. then turns to the eastward, and after winding in that direction a short distance, assumes a course considerably north of east, and receives some few small streams, and before entering the state of Louisiana, turns to the S. E. Many rivers also, of from eighty to one hundred and fifty miles in length, that enter into and augment Red river, have hitherto remained entirely unknown. Between the Panis village and the limits of the state of Louisiana, Red river receives from the north the rivers Kimichie, Vaseux, and Little river of the north; from the south, the Bois D'Arc and Little river of the south. The Bodcau, Dacheet, Black Lake and Saline rivers, entering Red river within the state of Louisiana, have remained, until the publication of the first edition of this work, unknown to geographers.

The river that flows into the lakes of Red river near the Cado villages, and another of equal magnitude that enters some distance above, have been noticed for the first time in this work. Those rivers, though small in themselves, have great influence on the rise and fall of Red river. Some very valuable tracts of land are found on their branches. The Dacheet particularly contains the most extensive range of rich soil to be found in the N. W. angle of the state of Louisiana. Upon the Saline is a very valuable salt flat, from which a considerable quantity of excellent salt is now made, and it would furnish any quantity that an extensive population might demand. The works now in operation stand nearly upon 32 degrees N. lat. and on 92° 52' W. long. about twenty-five miles from the town of Natchitoches, following the road. The Saline river, which takes its name from this salt flat, is a fine clear

limpid stream of fresh water, rising about fifty miles north of the salt works. It admits of navigation with large boats to the works, expands a short distance below into a lake of ten or twelve miles in length, and half a mile wide, again contracting into a small column, unites with the Black Lake river; their united waters join the Rigolet de Bon Dieu, eight miles N. E. of Natchitoches.

The lands on the Saline are generally sterile. Pine is the principal timber, interspersed with oak of different species. Near the water courses ash and sweet gum are found in abundance.

The Black Lake river rises in the same ridge of hills with the Saline, and it is here that the state of Louisiana commences to rise into elevations of any considerable note. The features of a mountainous country now present themselves, ledges of a loose sand stone rock abound, nodules of iron ore are every where met with, and petrifactions of the most diversified forms are strewed over every slope. Those petrifactions have generally the appearance of having first undergone their change from ligneous to the siliceous state in which they are found, and having been embosomed in an argillaceous clay, which indurating, enclosed them in its mass. Along the range of hills between Black Lake river and Lake Bistineau, these petrifactions are found in great abundance.

Lake Bistineau presents to the traveller a singular picture of recent change on the face of nature. The map will exhibit the position of this lake, its communication with Red river, and its relative extent: but no representation upon a map can convey an adequate idea of its peculiar physiognomy.

The land along both banks of the lake Bistineau rises into hills from one to two hundred feet in height, clothed with pine, oak, and various other trees, often affording most delightful prospects to the eye. The eastern range is higher, more broken and abrupt than the western, and, as has been observed, abounds with petrifications, which are much more rarely met with on the western bank. Along the margin of the water grow the white thorn, hawthorn, and other dwarf trees, forming an elegant natural border. Many small prairies of eight or ten acres in extent spread themselves over the projecting banks, and diversify this wild, uncultivated, but romantic scene.

But what renders this lake an object of peculiar interest is, the proof it affords of the continual change effected in those alluviac regions by the slow, but never-ceasing action of water. The medium depth is from fifteen to twenty feet, and at the lowest stage never less than ten or twelve, along the principal body of water. The remains of cypress trees of all sizes, now dead, and most of them with tops broken by the winds, yet remain standing in the deepest parts of the lake. The quality of resisting the action of the air and water, for which the cypress is so remarkable, has been the cause why so many ruins of that tree remain in Bistineau, to attest the ancient situation of the country.

No doubt can exist in the mind, after viewing this lake, but that its bed was once the bottom lands along the banks of the small river Dacheet. By the agency of Red river, a bank of earth and sand has been formed across the lower extremity of this valley, which by con-

fining the waters between the hills at all seasons, formed lake Bistineau*.

No known tree in Louisiana will exist with its roots constantly under water; even cypress perishes when submerged throughout the year. This is manifested in all the low lands of Red, Mississippi, and Atchafalaya rivers, where the revolutions of the lakes and Bayous frequently expose cypress to stand in water. Their dead trunks are undeniable testimony of their inability to vegetate in this new situation.

In lake Bistineau, the other species of timber that were intermingled with the cypress, decayed rapidly, whilst the cypress, from its durability, withstood the efforts of corruption until the present time.

In the same manner has been formed the Black lake, Cado lake, Spanish lake, Natchitoches lake, and most of the other lakes that are found near the margin of Red river, from the Quachata village to the rapids at Alexandria. The bed of the river has been slowly elevated by the materials brought down by the current, and deposited in the openings of the smaller rivers.

The principal tributary stream of Red river, is Black

* A similar phenomenon has taken place in the body of the Columbia river.

“ During the whole course of the Columbia, from the rapids to
“ the Chilluckquittepaws, are the trunks of many large pine trees
“ standing erect in the water, which is thirty feet deep at present,
“ and never less than ten. These trees could never have grown
“ in their present state; for many of them are much doated, and
“ none of them vegetate, so that the only reasonable account that
“ can be given of this phenomenon, is, that at some period, which
“ the appearance of the trees induces us to fix within twenty years,
“ the rocks from the hill sides have obstructed the narrow pass at
“ the rapids, and caused the river to spread through the woods.”

Lewis and Clark's Travels, vol. ii. p. 241.

river, (Riviere Noir,) or as it is more generally called Ouachitta*; the Indian name having prevailed over that given by the European emigrants. Black river is now used to designate the united waters of Ouachitau, (properly so called,) Ocatahoolu, and Tensaw rivers; but as Ouachitau is more deserving of attention than the other branches, the name of that river can be made use of without impropriety to designate the valley between the Mississippi, Arkansaw, and Red rivers. The valley of the Ouachitta is upwards of three hundred and fifty miles long, and its broadest part from the Quapa village on Arkansaw to the heads of Derbane river, one hundred and fifty miles. This valley is nearly in the form of a semi-ellipse, and averages from seventy to eighty miles in width, extending over more than twenty-five thousand square miles of surface, or upwards of 16,000,000 of American acres, containing extensive tracts of fine arable soil, many places that indicate great mineral wealth, and an excellent climate. The region embraced by Ouachitta claims a deep interest from those whose views or researches are drawn towards Louisiana. Few places on the globe contain, upon an equal area, so many valuable productions, vegetable and mineral, or can present a more diversified surface. All the changes of situation, alluvial deposition, annual inundation, prairie, hills of a thousand forms, and mountains of no mean elevation or extent, here open successively their varieties to the eye of the traveller.

The principal branch of Ouachitta draws its source

* The French write this name Ouachitta, which, from the orthography of their language, produces the same sound as Washitau.

from the mountainous prairies between Red and Arkansaw rivers, about $95^{\circ} 30'$ W. long. and 34° N. lat. From this elevated steep arise many other streams, which winding over this broken region, at length unite above the Hot Springs, and form the Ouachitta.

The mountains out of which the Ouachitta flows, are composed of secondary materials; marine exuviae are every where found mixed with the schistus, argillaceous earth, and other matters that compose the face and interior of those rugged mountains. The whole face of the country indicates marine submersion at some remote period.

The Fourche au Cado, Little Missouri, and Saline branches of Ouachitta, rise in the same ridge with the principal stream.

The lands around the head of Ouachitta partake of the sterility of the great salt plains of Texas, which indeed they very much resemble. South-east of the Maserne mountains, on the waters of Little Missouri, the soil becomes of better quality, and some tracts are extremely fertile. Indications of metals become more rare, timber is abundant, and the prairies imperceptibly disappear. Pine and that species of oak known by the appellation of upland black oak are frequently met with in large bodies. Ash, linden, dogwood, and other timber, the usual growth on good second-rate land, is likewise plentiful. The soil is adapted to the culture of small grain, to legumes, the potatoe, and almost every plant and herb suitable to the climate. Cotton, a plant demanding a moderately fertile soil for its production, will succeed on all the arable lands of Ouachitta. Gypsum has been discovered on Little

Missouri, but never yet made use of by the inhabitants.

Salt springs, as they are loosely termed, have been found, and some salt of good quality made. The term salt spring, conveys but a very imperfect idea of the places where that mineral exists. At Mr. Postlethwait's salt works, near Natchitoches, the water is drawn from wells perforated in a sandy bottom similar to the beaches of a river. The number and extent of the salt plains of Louisiana is immense, and will render that indispensable mineral easy to be procured in places the most remote from the sea. The existence of alum, saltpetre, copperas, and soda, may not unreasonably be expected in a region containing so many mineral indications. Iron, the most useful of all metals, or in fact of all substances not directly necessary to animal existence, may be manufactured on the Little Missouri, and other branches of Ouachitta, from native ore. Whether the precious metals are to be found, as yet remains unknown.

Few rivers differ more in the quantity of water at different seasons than the Ouachitta. Flowing from a hilly or mountainous tract, more constancy might be expected in the column of water; but though the places drained by the Little Missouri and Fourche au Cado are not deficient in springs, yet the extensive region towards the sources of Ouachitta has little water except what is supplied by rains in winter and spring. When the parching heat of summer has dried the country above the mouth of the Little Missouri, the Ouachitta becomes very low as far south as the head of Black river. Correctly speaking, no branch of Ouachitta can be considered as well supplied with spring water, though some spots are favourable exceptions.

About $33^{\circ} 10'$ of north latitude, the Saline, a small river from the angle between Ouachitta and Arkansas, falls into the former river. The Saline rises twelve miles east of the Hot Springs, and, pursuing a course nearly parallel to Ouachitta river, about 120 miles of comparative length, is navigable seventy or eighty miles from its mouth with boats of considerable size in time of high water.

The Derbane, a beautiful little river which rises in the state of Louisiana, and has its principal source in N. lat. $32^{\circ} 50'$, W. long. $93^{\circ} 10'$, pursues nearly an eastern course of sixty miles comparative length, and enters Ouachitta from the west. The Derbane is navigable half its course for large boats. Contrary to most other water courses in its neighbourhood, this river is supplied by a great number of springs; its water is extremely pure. A few new settlements have been made, on some of the strips of fine land bordering the numerous creeks that contribute to form the Derbane. Singular as it may appear, this river, though in the neighbourhood of the first establishment on Ouachitta, made more than thirty years ago, is a recent discovery; none of the maps of that country indicate its existence. A ridge of hills enters the state of Louisiana nearly on 93° W. long. and winding a few miles south, divides the waters of the Dacheet from those of the Derbane; then assuming a S. E. direction, divides the heads of Black lake, Saline, and Ocata-hoolu rivers from Derbane, reaches the banks of Ouachitta in $32^{\circ} 15'$, and ranging along that river, finally disappears in $31^{\circ} 42'$ N. lat. The Derbane occupies the eastern slope of those hills. No prairies are found on this river; the whole extent from which its waters are drawn is a thick forest, composed of pine, oak,

ash, hickory, linden, and almost every other forest tree found in the northern part of Louisiana. The pine occupies the hills and plains at a distance from the streams. Near the water courses many secondary bottoms or slopes are met with, where the pine is found, admixed, with oak, sweet gum, and dogwood. The soil found in these places is of good quality for corn, cotton, and small grain.

The valley of the Derbane, like that of the Dacheet, will admit of a scattered population over the face of the country, unlike the settlements along the margin of alluvial rivers, where a narrow strip of high land is bounded at a short distance from the water's edge by annually overflowed lands. Emigrants from a high dry country will find a congenial situation, not only on the Derbane, but on the east slope of Dacheet, on the Black lake, and the Saline river.

Open pine woods, covered in summer with an abundant succulent herbage, the slopes or points of projecting hills near the water courses wooded with oak, ash, sweet gum, and other timbers that indicate a second-rate soil; with bottoms on the water subject to casual overflow, and covered with the most impenetrable underbrush, form the prominent physiognomy of all that part of the state of Louisiana, included between the Red and Ouachitta rivers.

The river Barthelemy falls into Ouachitta three miles below the Derbane, but from the contrary side. The Barthelemy rises near the Arkansaw, and has a course of upwards of an hundred miles of comparative length. The banks are high and not subject to inundation, and are composed of second rate land; some of the bottoms, however, are equal to any lands on Red river. The general course of the Barthelemy is from

north to south; about one third, and much the most valuable part of its length in the state of Louisiana, traversing the lands included in the grant made to Baron Bastrop, but now owned by a number of individuals. This grant being of so much importance from its extent and the interest it has excited, its outline has been traced on the map.

Few places can offer a more agreeable diversity of soil or surface than the ground claimed under this grant; 820,000 arpents* of which are in the state of Louisiana, leaving an angle of 180,000 arpents in the Missouri territory. Between the Ouachitta and Barthelemy the pine woods, chequered with small prairies, extend as low as their junction. The land here is mostly unproductive, the western margin of the Barthelemy presenting less valuable soil than the eastern. Between the Barthelemy and the Boeuf, the pine tract traverses the grant, and reaches as far south as the head of the Boeuf prairie. The pine region is interrupted by the two prairies, Mer-rouge and Jefferson, of small extent, but excellent soil. Lands near the Boeuf and Macon rivers are subject to annual overflow, owing to the stagnation caused towards their mouths, by the rise of the Mississippi, but some parts of their banks are high enough to admit settlements of considerable extent.

The map will exhibit the very complicated conformation of the country. A few miles above its mouth a small stream leaves the Barthelemy, which, winding southward through the pine woods about seven or eight miles, enters the alluvial tract, and, continuing

* Arpent, a French superficial measure of Land. The arpent and English acre are as 605 of the former, to 512 of the latter. Bastrop's grant, was originally made for 1,000,000 of arpents, or 846,281 acres.

its course, expands into one or two small lakes, and finally unites with another bayou from the north, sixteen miles east from fort Miro. The former of these two waters, by the absurd and conflicting nomenclature but too common in Louisiana, is called Bayou Boeuf, and the latter has received the appellation of Bayou Bon Idée. Their united streams, after running south five or six miles, leave Bastrop's grant, and, continuing to flow nearly parallel to the Boeuf, unite with that river west of the Boeuf prairie. The whole length of the Bon Idée exceeds an hundred miles, without estimating its numerous bends. A ridge of hills of little elevation begins first to be perceptible, a few miles south of the place where Bayou Boeuf leaves the pine woods, and, what is singular, the bayou pierces this ridge in its way from Bayou Barthelemy to its junction with Bayou Bon Idée. North of the pass of Bayou Boeuf the hills, gaining more elevation, range a little east of north, come within one mile of prairie Mer-Rouge, and continue to extend between the waters of Bon Idée and Barthelemy; between Barthelemy and Boeuf they unite with the high lands near the Arkansaw. This ridge is a very distinct outline, and appears from very remote time to have constituted a line of separation between the alluvial land to the east, and the more ancient strata on the west. Where fractures expose the matter in these hills, they present the most regular structure of alternate sand, argillaceous and calcareous earth, with a fine bolus of a heavy red colour; the latter in thin lamina. No stone, nor rock, nor no metallic indications are seen: every appearance demonstrates that, though ancient when contrasted with the recent tract to the east, those hills are themselves the remains of alluvial deposition.

On a review of the tract under examination, every

object denotes that the quantity of water once flowing through the country was greater than what passes at present. This observation naturally leads to a reflection upon the causes of this change. Though the column that passes by the Mississippi and Red rivers is still enormous, yet so many places bear the traces of water in rapid motion that are now above the reach of the floods, that no reasonable doubt can remain, after a careful survey of the country, of the diminution that the aquatic empire has experienced in Louisiana. The large rivers that flow into the Mississippi from the west, and the scarcity and trifling size of those from the east, have contributed to change its bed. The Red, Ouachitta, Arkansaw, and White rivers have, by the spoils brought from the inclined plane over which they flow, forced the great mass of waters in the Mississippi to range the eastern bluffs. But a change of bed could never have been the sole cause of the exemption from inundation, of places that are now twenty or thirty feet above the highest water, that were evidently once periodically submerged. May not this revolution have drawn its causes from a change in the earth's centre? May not the time have existed when the Canadian lakes discharged the whole or part of their column down the Mississippi?—How very small a difference in the inclination of the plane from lake Michigan towards the Mexican gulph, would produce the most extraordinary changes? Has not the straits of the Thracian Bosphorus and the Hellespont been made by some such convulsion of nature? Did not the once deeply rooted tradition of the deluges of Deucalion and Ogyges owe its origin to some real revolution, which threw the waters of a once extensive inland sea into the Mediterranean, and in their march overwhelmed Thrace? Is not

the Black sea the remains of a mass of water, once greatly more extensive? Did Louisiana experience a deluge similar to that which swept the peninsula, between the Euxine and Ionian seas?*

Four or five miles below the efflux of the Bayou Bœuf, another outlet, of a similar nature, leaves Bayou Barthelemy and enters Ouachitta, in N. lat. $32^{\circ} 35'$ after a course of twenty-five miles, following the curve of the Bayou. This outlet has received the name of Bayou Siard, and for some distance forms the demarcation between Bastrop's grant, and another of large magnitude, made to the marquis de Maison Rouge. The latter grant includes, with the exception of a few small locations, the whole island included between Ouachitta, Barthelemy, and Bayou Siard. A chain of small prairies runs southward from the confluence of the Barthelemy with the Ouachitta, and skirting the west margin of the Barthelemy and Siard, terminate about seven or eight miles from their beginning, whence a similar chain continues to border the Siard, but on the contrary margin to its mouth.

The richest settlement yet made on Ouachitta, or its waters, is on this Bayou. The small prairies are of excellent soil, though rather flat. The depth of arable land is not considerable, not exceeding a quarter of a mile in general,—the land from the Bayou quickly sinking into low flats, liable to immersion in time of rain, or the annual flood. It is a singular circumstance, that the line of prairie, when it terminates on one side, immediately continues on the other bank of Bayou Siard. Some land contained between this Bayou and Ouachitta, near the banks of the water, is sufficiently high for

* May not the fact here stated be accounted for by the progressive deepening of the channel of the Rivers?

culture, but the interior is low and annually inundated. Pursuing the high outline of this island, you find sweet gum, ash, black and white oak, sassafras, linden, and elm, with an entangled underwood of dogwood, spice, and other shrubbery, interwoven with vines of several species, amongst which the muscadine and wild grape predominate. Skirting the small prairies, and more or less along the whole margin, pine is mixed with the other timber. In the interior of the island is found cypress, the overcup white oak, persimon, and several species of thorn, ash, and red elm. This island is about fifteen miles long, by a mean breadth of three, containing about twenty-five thousand acres, six thousand of which may be considered arable.

Wheat of excellent quality has been cultivated on the island, and no doubt, in addition to cotton, corn, and other vegetables, now the objects of culture, might be added most kinds of small grain; oats, rice, and barley particularly. A want of streams to work mills, will probably prevent the introduction of the cerealia east of Ouachitta, whilst their production must become general on the Derbane, and several other waters to the westward.

Riviere aux Boeufs, or Ox river, is the last and largest branch of the Ouachitta. It rises in the angle formed between the Missouri and Arkansaw, and pursues a course to the S. W. for some distance, then turning southward for seventy or eighty miles, enters the state of Louisiana, and a short distance further, it crosses the N. E. line of Bastrop's grant, pursues a S. W. course through, and leaving the grant near its south angle, again re-assumes its direction to the southward, and after running about sixty miles comparative course, enters Ouachitta, above the W. point

of the island of Sicily. The Boeuf is from its source in the Arkansaw lakes to the boundary of the state of Louisiana, about one hundred and twenty miles, and from thence to its mouth, nearly the same distance, producing a length of two hundred and forty miles, without attending to the complicated windings of the river. The Boeuf is navigable as far north as Prairie Mer Rouge. When the accumulation of water has replenished the swamps, the Boeuf river remains stagnant for a considerable distance above its mouth.

A strong cane brake skirts the Boeuf nearly along its whole course through the state of Louisiana. Much land near its banks might be cultivated; but it is mostly subject to casual inundation. Though the Boeuf prairie is not on the margin of the river, it is affected by the revolutions of that stream, the greatest part of the lands being liable to immersion. The prairie is inhabited, and the soil is, like most alluvial lands, very productive.

Below the mouth of Boeuf river, all the waters which form the Ouachitta being united, the river, though not apparently larger than it is two hundred miles above, yet is much deeper, and may be navigated at all seasons. The first ledge of rocks that is seen from the mouth of the river, cross Ouachitta in a line with the west point of Sicily Island, and is the base of the hills on each side. It is probable that this ledge is the same that forms the rapid of Red river, and continuing eastward, has a subterraneous communication with the basis of the bluffs above Natchez. The mass of water in the Mississippi, and the quantity of mud and sand in its bed, will prevent those rocks from ever becoming visible; but from the aspect of the opposing bluffs west of the Ouachitta, and east of the Mississippi, by

the bearing of the ledge from the rapids of Red river through the parish of Ocatahoola, and through the space from the prairie of Ocatahoola to the Ouachitta, there can remain no reasonable doubt but they are the links that unite the western to the eastern banks of the Mississippi.

Below the mouth of Boeuf river, on the same side, Sicily Island rises from the bank of Ouachitta. This island, or rather isolated hill, is part of the remains of one of those argillaceous mountains, several other fragments of which are scattered over Louisiana. The discoverers of this elevated tract, on account of a fancied resemblance in form, gave it the name it bears. The acclivity rises abruptly from Ouachitta river, and is clothed with pine and oak trees. The elevation is about 40 or 50 feet, and continues to preserve that height for some distance; but gradually sinks into the overflowed lands towards the Tensaw river. The island is about five miles wide, and slopes, from north to south, gradually into the lowlands. This place presents to the eye a new scene in any point of approach. Nothing can afford a greater contrast than the low sunken lands near the Tensaw, and the broken points of Sicily. It must excite pleasure and astonishment, to pass at once from swamps, timbered with cypress, ash, and white wood, bearing marks of annual overflow to the height of seven or eight feet, into elevations overgrown with cane, amongst pine, black oak, black walnut, and poplar, (*liriodendron tulipifera*.) Unlike the lands west of Ouachitta of equal elevation, the hill of Sicily is extremely fruitful, the surface a black loam.

Several settlements have been made upon this island, and a road from Natchez, traversing the inundated lands of Mississippi and Tensaw, passes through the

settlement, one branch turning towards Boeuf prairie, and the other towards the establishments on Ocatahoola and Red rivers.

Fourteen miles below the Boeuf, the Ouachitta loses its name by its union with the rivers Tensaw and Ocatahoola. This singular small river, Ocatahoola, is a very striking example to show how near the surface of Louisiana approaches that of the superficies of a real sphere. The map will exhibit the places where this river has its source, but no delineation upon a plane can convey correct ideas of the peculiar traits of its geography. The lake through which this river flows, is alternately a wide expanse of water ten or fifteen feet deep, and an extensive grassy plain, the river winding through its center, and receiving several fine creeks from the north, which in the season of inundation empty themselves into the mass of water at the margin of the woods.

The same line of hills that form Sicily island ranges north of Ocatahoola lake and prairie, crosses the Ocatahoola river above the lake, and extends towards Red river. When the Mississippi is rising, the water flows with great force from Black river into the lake, and when it becomes replenished, the river is completely stagnant for many miles above. It is singular, that the bottoms of the Dugdomoni, or western branch, are much more subject to overflow than those of the main river, between the lake and its junction with Ouachitta or Black river.

From the N. W. extremity of the Ocatahoola lake issues an outlet that must once have been the channel of the river. A single glance of the eye is sufficient, to convince the mind that the Ocatahoola must have formed its junction with Ouachitta in a position very

different from the present. That the revolutions which have changed the very face of nature in Lower Louisiana, have not entirely been the effect of alluvion, appears almost demonstrable from an inspection of the banks of Red river, which are intermixed with marine shells, and from the view of the numerous ruins of argillaceous hills, of which the Sicily island, Avoyelles, the Petite Anse, Grand Côte, Côte Blanche, and Belle Isle, are prominent remains.

The river Maçon issues from the large lakes or ancient channels of the Mississippi, north of the thirty-third degree of N. lat. and receives on its course to the southward many other outlets, particularly the Tensaw; after their junction east of Sicily island, the united streams take the name of the latter. Considerable tracts of land upon the margin of these rivers are sufficiently high to admit of culture, and the soil is equal to any other alluvial lands in Louisiana. Since the acquisition of the west bank of the Mississippi by the American government, establishments have been made on the river and lakes in its vicinity, by adventurers from several places, and amongst others, from the state of Mississippi. As early as 1810, the Mississippi had, on its west border, the parishes of Concordia and Warren, with a population of two thousand nine hundred people. Great damage has been done to this range by the floods of 1811, 1812, and 1813, particularly by the latter. How far extensive embankments would protect the plantations from the water, remains yet undetermined; but more difficulty will ever exist here than below Atchafalaya, in guarding against water, on account of the proximity of the great receptacle of the outlets, which, when surcharged, decreases the inclination of the plane from the Missis-

sippi, and has a tendency to produce a reflux towards that river. This reflux is more dangerous, and infinitely more difficult to prevent, than the inundation from the river itself. The Red river, when high, which generally happens at the same time with the Mississippi, checks the discharge from Black river, and contributes in no small degree to throw back the mingling waters of Ouachitta and Tensaw, upon Concordia. In all floods, since 1800, this part of Louisiana has been more injured than any other near the banks of the Mississippi.

After the junction of Ouachitta, Tensaw, and Ocatahoola, the former loses its name, and the united stream is thence called Black river, which, after a short and very winding course of thirty miles, unites with Red river.

The banks of Black river are very fertile; but the arable margins narrow, and subject to occasional submersion. This river is about 200 yards wide, the current gentle, with sufficient depth of water throughout the year for large boats. Thirty miles below the mouth of Black river, the Red river joins the Mississippi.

The peninsula between Black and Red rivers and the Mississippi, is intersected by numerous small water courses, supplied from the Mississippi at high water; the land is generally low, and clothed with a thick forest of ash, cypress, swamp white oak, elm, persimmon, and other trees usually found on the annually overflown lands of Louisiana.

To complete the review of this part of Louisiana, it will be necessary again to return and take a more comprehensive survey of Red river.

From the best information, Red river rises about

thirty or forty miles east of Santa Fé, in about 37° N. lat. and 105° W. long. from Greenwich, and after pursuing a course S. E. by E. 450 miles, with a spur of the Taous mountains on the left, receives the False Ouachitta from the north. The False Ouachitta rises in the Taous mountains, to the north of Red river, is a clear and beautiful stream nearly as large as Red river, and in quantity of water perhaps superior. These two rivers form a junction a short distance below the Panis, or Towiache towns, and about 70 miles lower are joined by the Blue river from the north. The latter also issues from the Taous mountains, and runs nearly parallel to the False Ouachitta. The united waters of these rivers form Red river, now a large stream, turbid and brackish from the waters of Red river, properly so called, and Blue river. The Vaseux (muddy or slimy river) rises in the great prairies about N. lat. 36° , and 95° W. long. from Greenwich, runs S. W. 100 miles, and then turns south and enters Red river after a comparative course of about 200 miles. The Kimitchie rises near the head of the Vaseux, pursues nearly a similar course, winds round the western extremity of the Maserne mountains, and falls into Red river about 50 miles below the entrance of the Vaseux. The Little river of the north rises in the Maserne mountains, is a clear and beautiful stream, its course extremely winding, though its comparative length does not exceed 150 miles from its source to its union with Red river, N. lat. 34° , and about 94° W. long. from Greenwich. The next stream worth notice that enters Red river, is the Little river of the south. This river rises in the prairies 40 miles S. E. of the Panis villages, runs nearly east about 150 miles, and enters Red river 60 miles below the mouth of the Little river of the north.

From the source of Red river to the mouth of the Little river of the south, is about 600 miles in a direct line S. 60° E. the general course of the river; but estimating the windings of either the Red, False Ouachita, or Blue river, the distance must exceed 1000 miles. The Red river winds through this great inclined plane, which forms the limit between the waters that flow into the gulph of Mexico, and those that mingle with the Mississippi, divides it nearly into two equal parts. The country from which the Red river draws its source is a vast prairie, except along the banks of the river, and even there what little timber there is, is dwarf; the most abundant species is a variety of the black locust, called by the hunters mosquito wood. The range of low mountains are extremely bare of timber, though, from the best information, abounding in calcareous substances. The cause of these prairies, with so immense a surface without forest trees, though possessing a soil capable of their production and growth, remains yet to be explained. This plain of open surface no doubt greatly influences the climate of Louisiana, and in fact that of all the continent of North America. An ocean of grass extends with partial interruption from the gulph of Mexico to the Northern ocean, forming one of the most singular features of our globe, and deserving an attention from the geographer and naturalist it has never yet obtained. Under the head of the climate of Louisiana, it will be necessary to enter more extensively into the examination of this remarkable region*.

* The following description will most forcibly exhibit the striking difference between the African and American deserts.

“ Ludamar has for its northern boundary the great desert of Sahara. From the best inquiries I could make, this vast ocean of

Below the junction of Blue river, Red river is navigable for boats of large size, during the spring floods, and timber becomes more frequent and of larger growth. At the mouth of the Vaseux the pine first occurs on the south side; the banks are elevated above inundation, and the land of a good quality; the river is here also much wider than near the Mississippi. From the place where the Panis now reside, to the Avoyelles, the Red river will admit of settlement, and many of its tributary streams will, in some future period, be the abode of civilized man. The banks are alternately woodland or prairie, until within twenty miles of the mouth of Little river of the south. Many ranges of

sand, which occupies so large a space in northern Africa, may be pronounced almost destitute of inhabitants, except where the scanty vegetation which appears in certain spots, affords pasture for the flocks of a few miserable Arabs, who wander from one well to another. In other places, where the supply of water and pasture is more abundant, small parties of the Moors have taken up their residence. Here they live in independent poverty, secure from the tyrannical government of Barbary. But the greater part of the desert being totally destitute of water, is seldom visited by any human being; unless where the trading caravans trace out their toilsome and dangerous route across it. In some parts of this extensive waste, the ground is covered with low stunted shrubs, which serve as land marks for the caravans, and furnish the camels with a scanty forage. In other parts, the disconsolate wanderer, wherever he turns, sees nothing around him but a vast interminable expanse of sand and sky, a gloomy and barren void, where the eye finds no particular object to rest upon, and the mind is filled with painful apprehensions of perishing with thirst. 'Surrounded by this dreary solitude, the traveller sees the dead bodies of birds that the violence of the winds has brought from happier regions, and as he ruminates on the fearful length of his remaining passage, listens with horror to the voice of the driving blast, the only sound that interrupts the awful repose of the desert.'

Parke's Travels into the Interior of Africa.

strong cane occur between the prairies along the margin of the river.

The general growth of timber above the Little river of the north, is paccan and some other species of hickory; oak of different species, and some pine and cedar. Cypress first presents itself at the mouth of Little river of the north, about 34° N. lat., but is not found in great quantity.

The waters that enter Red river from the Maserne mountains, are pure, limpid, and excellent to drink; but those that enter from the south are turbid and mostly brackish.

Below the mouth of Little river of the south, Red river assumes a south course, which it maintains upwards of 100 miles in a direct line.

The immense column of water brought down by the various streams that form Red river, cannot be contained within its bed during the spring floods, and about the 33° N. lat. it commences to overflow its banks. Here a total change takes place in the appearance of nature; the shores become low, the species of timber is such as is generally found along the banks of the Mississippi in corresponding latitudes, excepting where by the winding of the stream, a pine bluff approaches the river brink. A chain of lakes commences on each side, at a less or greater distance from the river. Those lakes are the natural deposit of a vast body of water that would otherwise overflow the whole adjacent country.

There cannot remain a doubt, after a careful review of the general aspect of the region from the head of lake Bodcau, to the town of Alexandria at the rapids, but that the whole intermediate space once formed a lake, similar, except in extent, to the smaller lakes that

yet remain. The earth that composes the numerous islets that are enclosed between the various branches of the river, are the spoils of the extensive regions through which the Red river and its branches range from their source to the alluvial tract.

The nature of those lakes is singular; from their appellation we would be led to believe them the constant repository of water, though in reality they are merely reservoirs emptied and filled annually by the hand of nature. In the autumnal months, after the waters have been drained by the depression of the river, the beds of most of the lakes become dry, and exhibit a meadow of succulent herbage, with channels for the waters that continue meandering through them. In most of these channels, there is a flux and reflux, according as the water in the river and lake preponderates in height. The Spanish lake and the Natchitoches lakes are examples of this. When the Red river commences its annual rise, the waters run with a strong current into the lake, which gradually filling, returns the water into the river with equal velocity, when the depression of the river, by the summer heats, begins to take place. This flux and reflux is continual; the channels that form the communication between the lakes and river are never dry. Most of the lakes have the pine woods on one side of them, from which issue fine clear creeks of water, whose pellucid currents compensate the inhabitants for the unpalatable waters of Red river. Were it not for those temporary depositions, the fertile banks of Red river would be annually submerged and rendered unfit for settlement. From the upper part of lake Bistineau to the lower settlement of the Avoyelles, or to the mouth of Black river, the lands are generally high and fertile al-

both banks, and always on one side. The high lands or pine forests pursue on each side nearly the same course with the river, the creeks flowing from which, abound with excellent water. Below the town of Alexandria, the hills retire in nearly opposite directions, one range towards Opelousas, and the other towards the river Ouachitta, and the river winding through the space between the northern extremity of the Avoyelles, and a point of the hills on the left side, enters into the Delta of the Mississippi. Below this point Red river flows through low lands, the banks being liable to immersion.

An erroneous opinion has long prevailed, and is not yet entirely exploded, that the Mississippi river flows upon the apex of a ridge, and that Red river, near its junction with the former, is similarly constituted. The excessive quantity of water contained in these rivers in spring floods, has thus given rise to conclusions unsupported by facts.

The parishes in the N. W. section of the state of Louisiana, are,—

Rapides.—Bounded S. by Opelousas, S. E. by Avoyelles and Concordia, N. E. by Ocatahoola, N. by Ouachitta, and N. W. by Natchitoches.

This is, as far as excellent soil and timber can render a country valuable, one of the best tracts in Louisiana. There is no doubt but the greatest area of productive land, compared with the whole surface that can be found in the state, exists in the parish of Rapides.

This parish presents three distinct portions of land. On the S. W. the continuation of the pine woods of Opelousas; on the N. E. another pine region com-

mences; the centre is occupied by the alluvial banks of Red river and its connecting waters.

Should sugar cane succeed upon Red river, the parish of Rapides will contain immense farms of that valuable plant. The Bayou Robert and Bayou Boeuf are perfectly similar to the soil of the banks of Teche.

The natural timber of this alluvial tract consists of —*quercus tinctoria*, *quercus falcata*, *quercus phellos*, *liriodendron tulipifera*, *juglans nigra*, *juglans porcina*, *liquidambar styraciflua*, *fraxinus tomentosa*, *gleditsia triacanthos*, *laurus sassafras*, *ilex opaca*, *morus rubra*, *tilia pubescens*, *platanus occidentalis*, *populus angulata*, *magnolia grandiflora*, *ulmus americana*, *ulmus rubra*, *salix nigra*, *acer rubrum*, *nyssa sylvatica*, *diospiros virginiana*, and *fagus sylvestris*.

The dwarf trees are—The *castanea pumila*, *cornus florida*, *cornus alba*, *carpinus ostrya*, *carpinus americana*, *cerasus caroliniana*, and various others.

The pine tracts are similar to those already noticed. The *fagus sylvestris* begins to appear on the northern waters of Opelousas, and decorates the margin of all the streams to the north of that place, which have their sources in the pine forests.

No town except Alexandria on the right bank of Red river, below the rapid, has been formed in the parish of Rapides. This town is a fine thriving little village, and standing at the head of constant boat navigation, is of considerable commercial importance.

The settlements on the alluvial lands, follow the margin of the streams; but on the pine tracts are scattered over the face of the country. The general time necessary to complete a voyage from Alexandria to New Orleans and to return, is from twenty to thirty days.

The staples of the parish are cotton, lumber, beef, pork, and maize. Cotton and lumber are the principal articles. The lands are well adapted to the former; and the fine streams winding through almost inexhaustible forests facilitate the procuring and transporting the latter.

Natchitoches.—Bounded south by Opelousas, S. W. by Sabine river, N. W. by the province of Texas, north by the Missouri territory, N. E. by Ouachitta, S. E. by Rapides. This immense parish, covering 10,600 square miles, has so many traits of resemblance to Rapides, that as far as natural division, and production are concerned, the description of the former will serve for the latter.

It may be sufficient too observe, that near Natchitoches, in advancing from the gulph, first on the western side of the delta of the Mississippi appears in a natural state, the *robinia pseud acacia*, the *juglans olivaeformis*, (paccan*), and the *cactus cylindricus*.

On some creeks N. W. of Natchitoches, the *acer nigrum* is found. On the hills of Saline occur some stems of *juniperus virginiana*.

* Where can be considered the peculiar region of the *juglans olivaeformis*, I am unable to determine. The banks of Red river above Natchitoches, those of the Trinity, Brassos à Dios, Rio Colorado of the gulph of Mexico, and their branches; have every where present immense quantities of the paccan.

There are in the Parish of Natchitoches, two very distinct species of the *robinia*; one a tree of considerable size, the other a shrub, the latter is known by the name of mosquito wood.

The author of this work found on lake Bistineau, a third species of *robinia*; a dwarf tree about twenty feet in height, without thorn, I have given it the name of *robinia bistineau*. I am persuaded this tree is yet a nondescript.

The staples of Natchitoches are, cotton, tobacco, peltries, salt, beef, pork, maize, and timber.

The Red river cotton and tobacco have always been considered amongst the best in Louisiana. Salt is made at the works owned by Mr. Postlethwhait on Saline river, and transported to Natchez, New-Orleans, and elsewhere.

A few years past, a considerable trade was carried on with the Spanish provinces, by the route of Natchitoches. Wool, mules, and dollars, were brought in, and given in exchange for merchandize. Since the troubles in the Spanish colonies this traffic has almost entirely ceased.

The peltries are mostly received in exchange for goods sold to the savages.

The town of Natchitoches stands upon the right bank of Red river, at lat. $31^{\circ} 46'$, is a very thriving village, consisting of about one hundred and fifty houses. Fort Claiborne occupies a pine hill behind the town.

A few miles above Natchitoches, is the seat of the Indian agency for the savage tribes, on and near Red river, within the jurisdiction of the United States.

The settlements on the alluvion are upon the banks of the streams, but in the pine woods, are scattered over the country.

The common time necessary to make a voyage from Natchitoches, to and from New-Orleans, is from thirty to forty days.

The N. W. part of the parish remains uninhabited. The most striking features have been noted in our general view.

The same ridge that becomes first perceptible in passing Opelousas and Attacapas, intersects the coun-

try between Red and Sabine rivers. There is not any very striking difference to be observed in the country between Natchitoches and Sabine, and that stretching from that town to the N. W. extremity of the parish and state. Some extensive flats covered with *quercus obtusiloba* and *juglans porcina*, occur in traversing the extent between bayou Pierre and Sabine. Many of the hills are timbered with *quercus feruginea*. The land often presents a very sterile aspect. Above the lower part of lake Bistineau and the north boundary of the state, the high hills are almost uniformly clothed with *pinus rigida*, and *quercus feruginea*.

The road from Natchitoches to the warm springs on Ouachitta runs along this sterile region.

The land near the borders of the various creeks entering Bistineau, Dacheet, Saline, and the head of Derbane, are of second rate quality; but abounding in excellent springs of water.

Ouachitta.—Bounded W. by Natchitoches, N. by the territory of Missouri, E. by the Mississippi, S. E. by Concordia and Ocatahoola, and S. W. by the parish of Rapides.

In the general description of Louisiana, so much detail has been given respecting Ouachitta, as to leave little to add in a particular notice of that singular region.

The indigenous forest trees are nearly the same with those of Natchitoches and Rapides. That part of the parish lying west of the Ouachitta river is hilly, and at any great distance from the streams covered with *pinus rigida*. Near the water courses the *fagus sylvestris*, *cornus florida*, and *carpinus americana*, clothe the banks. On the points of hills and high bottoms

the *pinus rigida*, *quercus tinctoria*, *quercus nigra*, and *fagus sylvatica*, are found growing together. This association of trees vegetates upon the best land found between the Red and Ouachitta rivers, beyond the alluvion of either.

The *robinia pseud acacia*, abounds along the banks of the Ouachitta, intermingled with *laurus sassafras*, *juglans squamosa*, *juglans porcina*, *liquidamber styraciflua*, *quercus tinctoria*, *fraxinus tomentosa*, *betula nigra*, *fagus sylvestris*, and the various kinds of *vitis* and *smilax* that interlace their branches. The overflowed lands are overgrown with *cupressus disticha*, *nyssa aquatica*, *quercus lyrata*, and *quercus phellos*.

East of Ouachitta the alluvial soil is clothed with the same species of timber, found commonly upon similar land in the adjacent parts, which have been already amply described.

The margin of the few small prairies in this parish presents the *pinus rigida*, *quercus tinctoria*, and *liquidamber styraciflua*, as the most abundant timber. The woods thickly interwoven with various kinds of vines.

The residue of the parish has nothing remarkable to distinguish it from the contiguous country.

The settlements on Ouachitta, like those of Rapides and Natchitoches, are of two kinds; those that wind along the streams and prairies, and those west of Ouachitta river, interspersed through the pine woods.

No town or village has yet arisen in the country of Ouachitta that deserves particular notice. Fort Miro is nominal, designating only the site where a fort was intended by the Spanish government, when in possession of the country.

The staples of Ouachitta are cotton, tobacco, lumber,

and peltries. The general time consumed in a voyage from Ouachitta or Natchitoches to and from New-Orleans, is from thirty to forty days.

In autumn, when the waters are low, Ouachitta river is not navigable for vessels of any size above common canoes.

If sugar cane can be cultivated on Red river, near Natchitoches, it will certainly grow, within corresponding latitudes, on Ouachitta.

Ocatahoola.—Bounded N. W. and N. by Ouachitta, E. and S. E. by Concordia, S. and S. W. by Rapides.

Nothing of consequence, not noticed in the general remarks, distinguish this parish from that of Ouachitta. Timber, natural divisions, common features, and staples, remain the same. There is less good land, compared with the entire surface, in either Ouachitta or Ocatahoola, than in the parish of Rapides.

Concordia.—Bounded E. and S. by the Mississippi river, W. by Avoyelles, Rapides, and Ocatahoola, and N. W. by Ouachitta.

When treating of the annual overflow of the Mississippi banks, great part of the interesting matter relative to Concordia, has been anticipated by that detail.

The entire area of this parish is in the alluvial lands; and is either of the first rate quality, or subject to occasional submersion.

The indigenous forest trees are, near the bank of the Mississippi, the *populus angulata*, *platanus occidentalis*, *quercus tinctoria*, *quercus falcata*, *quercus phellos*, *ulmus americana*, *ulmus rubra*, *salix nigra*, *tilia pubescens*, *juglans amara*, *juglans laciniosa*, some few stems

of the *juglans olivaeformis*, and frequently the *castanea pumila*.

At a distance from the rivers, and on land subject to annual inundation, the most common species of timber trees are, *cupressus disticha*, *nyssa aquatica*, *fraxinus americana*, *fraxinus aquatica*, *quercus lyrata*, *diospiros virginiana*, *salix nigra*, *celtis crassifolia*, *juglans amara*, and *juglans aquatica*.

The *arundo gigantea* and *chamaerops* Louisiana occupy the same kind of soil and relative position as in other places where those two vegetables are found.

The settlements of this parish are mostly on the bank of the Mississippi, and the lakes St. Joseph, St. John's, and Concordia.

The village opposite Natchez, and bearing the same name with the parish, is the only town that has yet arisen in Concordia.

Staples.—Cotton, lumber, and maize. The general commerce of this region differs little from that of the opposing parts of the state of Mississippi.

Avoyelles.—Bounded E. by Concordia, Red, Mississippi, and Atchafalaya rivers, S. W. by Opelousas, W. by Rapides, and N. by Red river.

This parish is formed by the Avoyelles hill and prairie; and the surrounding alluvion of the Mississippi, Red, and Atchafalaya rivers.

The natural productions are perfectly similar to the adjacent parishes, in analogous situations. There is not in Louisiana, an appearance more striking, than the contrast in rising from the deep overflow of the rivers, to the hills of Avoyelles and Bayou Rouge. In other places the transition is gradual; here the change is instantaneous, from the low lands timbered

with *cypressus disticha* and *nyssa aquatica*, to the elevated soil upon which is growing luxuriantly, the *magnolia grandiflora*, *liriodendron tulipifera*, *quercus tinctoria*, and *ulmus americana*, with an underwood of *cornus florida*, *laurus benzoin*, and *morus scabra*.

The singular stream of Bayou de Glaize winds nearly through the centre of Avoyelles. The banks of this Bayou are above inundation, and are covered with *arundo gigantea*. It is these banks that impede the waters of the overflow of Red river from taking a course towards Opelousas, and turn the current into the Atchafalaya.

The land upon the De Glaize is excellent, and will admit extensive settlement; but little is however reclaimed, and most of it remains public property.

Settlements yet made in this parish, are in Avoyelles prairie, and that of the Bayou Rouge; the latter is however of little consequence, consisting of only eight or ten families. Staples are cotton and lumber.

It may be observed in this recapitulation of the parishes of the state of Louisiana, that many objects are omitted; I have presented only those features that mark the general character of each place. The impression on the mind must be stronger, when nothing is seen but the bold outlines that compose the physiognomy of a country, and the memory will retain more tenaciously when not distracted by minute detail.

Respecting the boundaries of the parishes marked on the map, many of them are drawn by analogy; not being defined by law. As my object was more particularly to give correct information respecting the various natural features of the country,

the mere political or artificial subdivisions were of minor consequence. New parishes will no doubt be formed, as population increases ; but the standing objects in nature resting permanent, I trust the descriptions given will long remain accurate.

STATISTICS
OF THE
STATE OF LOUISIANA.

CHAP. VI.

AGRICULTURE—FRUITS.

I WILL now review another and important subject; the agriculture of not only the banks of the Mississippi, but collectively of all the state of Louisiana. The information given on this head is in part from actual experience, and all from personal observation. Something may be omitted that would interest the reader; but I trust that nothing is presented that can mislead. One object has been kept in view by the writer; to avoid inflated accounts that could engender hopes of premature gain. In delineating the great permanent objects of nature, an effort has been made to render the descriptions true, and lasting as the objects themselves. In detailing the advantages or disadvantages attending settlement in Louisiana, the contrast has been made without individual prejudice. How far the writer's views have been transfused into his work, the public will decide.

Amongst the objects of culture in the state of Louisiana, maize or Indian corn deserves the first place.

Maize is cultivated in every variety of soil in the state; the quantity produced from a given surface of land varies extremely. In new and rich bottom, or alluvial lands, often twenty barrels or sixty bushels have been procured from a square acre, but this produce is beyond the common standard, even on the best soil. On second rate lands in the northern parts of the state, remote from rivers of large size, an average of fifteen or twenty bushels to an acre may be considered a good crop. But few spots that can be cultivated, but will produce maize. Perhaps this excellent grain will come to perfection on greater variety of soil, than any other that has been brought into use for purposes of nourishment. The time necessary to bring maize to maturity, is less than that requisite for any other species of grain. The range of the Indian corn is more extensive in America, than any other culmiferous plant yet cultivated. From the plains of the Rio de la Plata, to the Canadian lakes, maize is the principal nourishment of the human species, and the greatest part of the animals that man has made subservient to his use.

No scale to estimate the real value of the labour of human beings can be so certain, as the price of that produce reared by their hands for their own support. The quantity of Indian corn that in common years, and on land of middling quality, that one man can produce, will not vary much from two hundred bushels, which at one dollar per bushel, the ordinary price, gives two hundred dollars worth of nourishment, from the labour of one man. The time of the year that labour can be expended on maize does not exceed four months, or one third part of the season; maize is usually planted in the state of Louisiana in March, April, May, and even in June. The time of harvest varies accordingly,

through the months of August, September, October, and November. Though one dollar per bushel* has been marked as the medium price, yet its value must be liable to fluctuation from revolutions that may take place in other staple commodities. When sugar, cotton, indigo, and tobacco bear a high price, or when the hopes of the farmer are inflated respecting those articles, the culture of maize will be neglected; dependence being placed for supplies from Tennessee, Kentucky, Ohio, and other places. When, as has more than once been the case, in the last twenty years, that no staple would promise a rich return to the farmer, the above articles, usually more valuable in a commercial sense, were neglected; the necessities of existence were more attended to; and maize, as a marketable commodity, of course sold at a lower price.

All vegetable and animal substances have two values, that differ essentially from each other. The first and most settled value of any edible substance, is the part *that* substance performs in the nourishment of life. Absurd as it may be, this real value of all vegetable and animal matter, that is appropriated to support existence, has been neglected in most estimates respecting domestic economy, whilst the varying market price, has been dwelt upon with more than painful scrupulosity. From a real neglect of this difference, the most serious evils have been felt. When cotton will give a return of twenty, or twenty-five dollars per cwt. in the

* When mentioning the bushel as a measure of capacity, it is used from the knowledge that most persons who will probably read this work, use the bushel; though it has never been introduced into the state of Louisiana. Speaking of maize, or any other gramineous seed, measured by the bushel, the pure matter, freed from the pellicle or shell, is to be understood.

bale, and sugar or other staples in proportion, the purchase of the farinaceous substances, will not be severely felt: but when cotton or other staples are below the one-fourth part of the foregoing price, the evil of not rearing gramina sufficient to support animal life on a farm, becomes apparent. It is worthy of remark, how regularly plenty and scarcity produce each other. When maize is neglected in the state of Louisiana, it then becomes the interest of the farmer, in Tennessee, Kentucky, and elsewhere, to cultivate that grain in abundance. An enormous difference in favour of the culture of edible vegetables, or rearing of animals, as objects of commerce over other substances, is, that revolutions in the world, that often suddenly close the channels of exchange, can never inflict real distress upon a people, by forcing them to retain a surplus of provisions. This truth, though obvious, when once presented to the mind, has nevertheless too often escaped observation. Famine may rage with all its fury around magazines of cotton, indigo, or tobacco; but can never exist near a barn, replenished with maize, wheat, or rice.

Estimating the quantity of vegetable matter necessary to support animal life on his farm, every prudent, or indeed humane farmer, will first attend to its production, before that of any other substance, however exorbitant may be its price in market. The real value of maize, following this rule, can never differ in the hands of the cultivator; until he produces a quantity beyond the consumption of his estate. This surplus will then assume the nature of any other staple, and be liable to the same changes that regulate the prices of all other things of a similar description.

All emigrants should on their first removal to the

state of Louisiana, attend to the production of grain before staples of any kind. Dear purchased experience has taught too many the difference between the real and nominal value of all culinary substances.

In support of life, in the state of Louisiana, rice stands next to maize, though neither the actual, or even probable extent of the culture of the former grain, equals that of the latter. It is only near rivers, or where the surface can be laid under water, that rice can be cultivated to advantage. Near the Mississippi, and on many of the secondary streams, rice can be produced in abundance. Though this grain can be cultivated in fewer places than maize, the quantity from a given surface is less. Fifteen barrels might perhaps be a liberal estimate of the produce, in common seasons, from an acre of rice. The real value of rice, as an article of consumption by the persons who cultivate it, does not greatly differ from maize, though the nominal price, as marketable commodities, differs greatly. When maize is at one dollar per bushel, rice will be twice that sum, upon the same quantity. This difference arises from the expense in cultivating rice, and in cleansing it from the husk*.

In all places where the two gramina, maize and rice, can be produced, a kind of vegetable competition will exist. From the great facility of its culture, from its instantaneons use almost as soon as formed, from the great ease with which it can be distributed to every living being whose food it may compose, either the whole or part; maize must ever be the chief object of

* Humboldt remarks, that the cultivation of rice is neglected in the Mexican provinces, and assigns the difficulty of watering the lands as the reason of that neglect.—*Political Essay on New Spain, Paris Edition, vol. iii. p. 135.*

the farmer residing on lands, and in a climate congenial to its growth. Rice, though extremely nutritive, indeed exceeding an equal volume of maize, will be cultivated in Louisiana, rather as a staple, than as the stamina of life on the farms where it is produced. Rice possesses the general advantage that has been remarked as attending all cerealia as staple commodities; that of preserving plenty amid fluctuations of trade. Unedible produce may, and often does, aggravate the distress that attends mutations in commerce; by the view of useless wealth. A wise legislation will ever lend its utmost encouragement to the production of the necessities of life, and always favour a staple, that will tend to preserve the hand that gives it existence.

One advantage, however, in the culture of rice, arises from the possibility of raising it on grounds, too low and moist for any other species of valuable vegetable. This advantage will be more felt and appreciated, when, by the increase of population, land will become very valuable, from its surface, rather than from its situation. Spots may be made the residence of human life, by the planting of rice, that would otherwise be uninhabitable. In the basin of the Mississippi, where rice and sugar can also be cultivated with maize, that tract must claim a preference over all other parts of the state; a preference in its real comparative value.

A general idea prevails, that "rice contains much alimentary substance in a small volume*." In estimating the nutritive substance of any given body, nature seems to have founded the data from which the valuation must be made, rather upon the weight, than space occupied, and rather upon the laws of gravitation than

* Humboldt.

those of extension. Upon these principles, the barrel of clean rice, which weighs but two hundred pounds, would possess nearly the same value in nutritive substance as a barrel of wheat flour, which weighs nearly equal. Experience has shown, that between the two last mentioned substances, no very great difference exists in their benefits, when used as animal food. The barrel of maize flour, more porous, weighs less than that of either rice or wheat, and yields less sustenance to animals; but when estimated agreeable to respective weight, yields to neither in its beneficial principles of nutrition. Experienced farmers in Louisiana, who have cultivated maize and rice, concur in estimating the former over the latter, in the surplus that human labour can produce, above the quantity necessary for its own support: and was the demand for maize, as a staple, equal to the demand for rice, the culture of the former would be preferred to the latter; maugre all the difference that might exist in their respective prices.

The merits of those two vegetable substances may be summed up in few words, agreeable to existing circumstances. When cultivated for their real value, maize will be preferred; but as a staple, rice.

From its almost universal adoption by new settlers, in the first instance of their establishment, in all parts of the southern and western states, there seems to be a general and tacit preference given to maize. Men, in recent establishments, are in most instances pressed for food; and will place their attention on that vegetable, that from the least labour will in the shortest time yield support to animal life.

I hesitate not to say, that below 38° N. lat. to the Mexican gulph, in situations not elevated more than 1000 feet above the level of the ocean, maize will yield

more nutrition from the same labour, than any vegetable yet cultivated in that range.

The thirty-fifth degree of N. lat. seems to be the climate in the United States most salutary to maize; but its vegetable life is vigorous far north of that parallel, and flourishes south of it to the gulph. Though more productive in Tennessee, and even in Kentucky, than in Louisiana; yet the greater length of summer, in the latter country, compensates for the difference in produce, by prolonging the time of planting.

In the states of Louisiana and Mississippi, on all lands from the alluvion that is above common overflow to the highest hills, maize is cultivated. The produce greatly varies, on different soils, and in different seasons; but every where, and at all times, it is the crop that soonest and most extensively rewards the cultivator.

In vegetable association, the *Cornus Florida*, the common dogwood, is the native tree of this continent, most analogous, in the lands upon which it grows spontaneously and is resident, to the maize. In all the wide range of the two Americas, wherever the *Cornus Florida* is found, the maize can be cultivated. The flowering season of the *cornus* is a signal for planting the maize, and the fruit of the maize comes to maturity nearly at the same time with that of the *cornus*, if planted at the flowering time of the latter. It scarce needs any other proof to determine whether any given place is suitable to the growth of maize, than to establish the fact, that the *Cornus Florida* is found in the forests. Of other trees that grow upon lands in North America, most congenial to maize, the most remarkable are the *liriodendron tulipifera*, *juglans nigra*, *acer saccharinum*,

gleditsia triacanthos, quercus tinctoria, tilia pubescens, and the celtis crassifolia.

The long unsettled problem, “ What grain, or rather, what vegetable will support most human beings upon an equal surface ? ” has generally been answered, especially if the people in question live between the tropic of Cancer, and 35° N. lat. in favour of rice*. The solution of this problem can only become deeply interesting, when the population of any country is excessive. Where immense spaces of land lie uncultivated, as is emphatically the case in the state of Louisiana, the value of culinary substances must be drawn from human labour. Where great multitudes are confined to a small surface, vegetables ought to be preferred that from a narrow space give much nutritive produce.

Wheat may be named as one of the vegetables cultivated in the state of Louisiana, rather from what may be, than what has been done. Though some wheat of good quality has been raised in almost every part of the country, it has never yet been brought into general culture. Near the banks of the Mississippi, and some other rivers, where the flour of the north-western states can be exchanged for the richer commodities of the southern ; or where those commodities will give a high price, wheat will never be an object of agricultural economy. But remote from the Mississippi and Gulph

* Humboldt is of opinion, that an equal surface, cultivated in rice, will yield to animals more support than the same extent of wheat.

“ Il ne paroit pas douteuse qu'un terrain cultivé en riz, nourrit un plus grand nombre de familles, que la même étendue cultive en froment.”

of Mexico, in places where neither the soil nor climate will admit the growth of sugar cane, rice, or even abundant crops of cotton; wheat will be raised, for its real value, as an article of food for the use of the cultivators. The flour made above 35° N. lat. will ever supersede that substance made below that parallel, as a staple commodity in the valley of the Mississippi.

Rye, oats, barley, and indeed all cerealia, except rice, may be classed, as respects their locality, with wheat; like wheat they have been hitherto neglected. Clover, and all grasses capable to be made into hay, have been overlooked. Perhaps few countries on the globe would admit a greater variety of meadow grasses than Louisiana, but this invaluable part of agriculture has not been attended to with care proportionate to its importance.

Almost all the esculent roots of America, may be enumerated amongst those that are, or may be cultivated in Louisiana; but the principal place is due to the potatoe. The root known amongst the French inhabitants, by the name of "Patates Douce," literally, sweet potatoe, a species of tuberous rooted *convolvulus**, grows in excessive abundance, and upon a greater variety of land, than even maize itself. This excellent root at the present, and at all future periods, must rank amongst the most valuable vegetables that can be cultivated in Louisiana. In the English language, two plants, very different in family descent, have been confounded by one generic name; and distinguished by adjectives prefixed to the general term: the Irish potatoe, (a species of *solanum*,) and the sweet potatoe†.

* *Convolvulus Batatas*, Muhlenberg.

† Amongst the great number of useful productions, that the migrations of nations and navigations the most distant have brought

However different those two vegetables are in their taste, or botanic distinction, they contend with almost equal pretension, for pre-eminence as human food.

The Irish potatoe, from what reason I know not, has never yet been extensively cultivated in the state of Louisiana, but perhaps this neglect may arise from the greater facility of rearing its more tropical rival, the sweet potatoe. In the state of Mississippi, and in many parts of Louisiana, where I have seen the Irish potatoe produced from culture, the fruit was as large, but generally less farinaceous, than that reared in the north-western states.

On the banks of Bayou Boeuf, on red loam, similar to the banks of Red river, and on new land, the Irish potatoe has been produced, as large, savoury, and free from water, as any of the same species, reared in any part of the United States. No doubt but this plant may be produced in abundance, on land naturally covered with oak, and hickory timber*; this kind of land is common north of 31° N. lat. and in some parts of West Florida. It would be useless to enumerate the garden vegetables, brought to perfection within the state of Louisiana, and the adjacent counties; as such

to our knowledge, no plant since the discovery of the cerealia; that is to say, from time immemorial, has had such marked influence on the well-being of man, as the potatoe.

Its culture extends from the extremity of Africa, to Labrador, into Iceland, and Lapland. It is an interesting spectacle to see a plant, descending from mountains placed under the equator, advance itself towards the pole, and resist more than the cereal gramina, all the frosts of the north.—*Humboldt, Essai Politique sur la Nouvelle Espagne, vol. iii. p. 124.*

* That species of oak designated by botanists *Quercus Tincoria*, and that species of hickory vulgarly called pignut, *Juglans Porcina*.

a list would in most part be an enumeration of the well known plants that are the objects of horticulture throughout the southern, and many that are raised in the most northern states of the American Union. Gardening, as an elegant art, has yet been little attended to on the delta of the Mississippi ; though few places, from the mildness of the climate, and richness of the soil, are more favourable to that useful and pleasing branch of agriculture.

Several species of fig-tree, have been introduced, and produce abundantly. In the market of New Orleans, three or four kinds of very excellent figs are exposed for sale. The large purple fig is the most delicious and most delicate species of that fruit yet introduced. The tree will not resist the frosts of winter far above lat. 30° N. and is often killed below that parallel.

The yellow fig, transplanted from the south of France, is the species most generally reared on the Mississippi. This tree is found as far north as 33°, and no doubt might be introduced still higher. It is common over the whole state of Louisiana, wherever the whites have made settlements, and, excepting the peach, is the most general fruit found cultivated in those places.

The peach* has been introduced into Louisiana, and

* *Amygdalus Persica.* This tree has been introduced into Europe, and thence to America, from the south of Persia. In Europe and the northern parts of the United States, it is a deciduous tree ; but cannot be considered completely so in Louisiana, as the old leaves in part remain upon the tree until replaced by the new.

The above note was published in the first edition of this work, and contains the most commonly received opinion upon the original country of the peach ; but botanical writers are not of accord respecting either the native place or etymology of the name of this excellent fruit.

is the only fruit tree that the Indian tribes on the southern waters of the Mississippi, have domesticated. No Indian village, of any permanence, that I have seen, but what has the peach tree growing amongst the cabins. Accident, rather than design, seems in most cases, however, to have made the peach tree common in the Indian villages; by throwing the stone of the fruit, carried from the white farms, upon the ground near their cabins. The extreme facility with which this tree vegetates, has given the savages a fruit, that would never have become a part of their domestic luxury, from their own foresight and industry. Seventy or eighty miles from the white settlement on Bayou Pierre, (of Red river,) within four or five miles from the Sabine, in an old abandoned village of the Yatassé nation, I found the peach tree scattered amongst the ruined cabins, in the same wild confusion that I had seen that tree overshadowing the dwellings of savages elsewhere.

The peach tree below 33° of N. lat. approaching its native climate, becomes in some measure an ever green, bearing, in many seasons, either fruit or flowers throughout the year. Like the fig, the peach suffers from the showers that almost uniformly fall along the Mississippi in July and August. This periodical showery season happening when both those fruits are ripe, injures their quality, and by preventing in a great measure the inhabitants from drying them in the sun, decreases their beneficial uses to man.

The apple, though cultivated, and often of excellent quality, does not succeed well in southern Louisiana. Some fine orchards exist, but the tree languishes under a too tropical sun. Perhaps the high dry tracts on the hills of Derbane, Black lake, and Bistineau, may,

when peopled, be found more congenial in clime and soil to the apple, than the more southern delta of Red and Mississippi rivers.

The peach blossom is often killed in every part of Louisiana by frosts in spring; but the apple blooms too late to be often destroyed by those tardy, unseasonable storms.

That the olive has never yet been brought into general use in southern Louisiana, excites astonishment. This tree, from time immemorial has been the emblem of peace and plenty. The olive, is perhaps, amongst the first fruit trees that the human species, in times the most remote, made objects of their care. The olive is of all fruits the one whose uses are most numerous and salutary. This tree, over an immense range of the eastern continent, has been from the earliest times considered like the cereal gramina, indispensably necessary to human society. Yet this benefaction of Heaven has been in great part denied to America, from the carelessness of some, and the national jealousy of others, amongst the different people, who have planted colonies on this continent*.

The sweet† orange grows in great abundance in all the range of Louisiana, below 30° N. lat. but above that

* The great analogy between the climate of the Plateau of New Spain, with that of Italy, Greece, and southern France, should invite the Mexicans to the culture of the olive. This culture has been attempted with success, from the commencement of the conquest; but the government, by an unjust political system, far from encouraging, have sought to prevent it indirectly. There is not, that I know, any formal prohibition, but the colonists have not risked a serious attention to a branch of national industry, that would have instantly excited the jealousy of the mother country.

Humboldt Essai Pol. S. N. E. Vol. III. p. 149.

† *Citrus aurantium.*

parallel, it can seldom escape frost long enough to come to maturity. The citron, lemon, lime, and other fruits of the same family with the orange, are influenced by the climate in nearly the same degree. Until a botanic garden is established, it will in fact be difficult to determine how far many fruits and plants may be naturalized*.

The cherry tree, (*prunus cerasus*,) has been planted upon the Mississippi; but does not bear fruit abundantly, even upon the high hills of the Mississippi territory. The cherry tree adds another, to the many

* Mr. John Vaughan, of Philadelphia, informed the author, that the bignonia catalpa when first introduced into the squares and gardens of that city, was with difficulty preserved from the frost. This tree is now so far naturalized, in Pennsylvania and adjacent states, as to withstand the rigours of the severest winter. One growing in the State House Yard in Philadelphia is six feet eleven inches in girth; or upwards of two feet diameter. The tree is plentiful through the city and environs, vegetating as if in its native climate.

The *melia azedarach*, or pride of India, now so common in Louisiana, is becoming evidently more hardy. This is perhaps the most beautiful ornamental tree on this globe. Its growth is extremely rapid. Its fructification more abundant, and after planting, demands less care than any other exotic tree yet introduced into the United States.

The wood of both the bignonia catalpa, and *melia azedarach*, is excellent for many uses, and especially the former; it withstands the action of air and moisture longer than that of the cypress, (*cupressus disticha*,) red cedar, (*juniperus Virginiana*,) or even the black locust, (*robinia pseud acacia*.)

The author has often seen corner posts of plantations in Louisiana, of the wood of the bignonia catalpa, that had been planted upwards of thirty years, without exhibiting the least appearance of decomposition. In Opelousas and Attacapas its culture is now much attended to; but as a timber, might be still more usefully employed than hitherto.

existing proofs of the fact, that fruit bearing trees may be reared in places where their produce will not reward the trouble of their culture. When any given vegetable has been introduced into any country, only one step is taken in the investigation of the subject of its beneficial cultivation.

Various species of the plum grow in all parts of Louisiana in great abundance. This fruit is brought into the market of New Orleans in plenty.

The gooseberry and currant, like the cherry, seem to be out of their congenial soil and climate; vegetate with difficulty, and bear little fruit.

The various kinds of native *vitis*, (grape vines,) are vigorous in their growth over every part of Louisiana. The wild fruit of many species abound. The exotic species of the *vitis*, that have been introduced from the eastern continent, succeed well. From the mildness of the climate and the very great diversity of soil, no doubt but wine could be made in Louisiana to advantage. The cranberry, (*vaccinium macrocarpon*,) is found native on the waters of the Mermentau; but has never attracted public attention. Many other kinds of *vaccinium* are found in different parts of Louisiana. No part, indeed, if the overflowed lands of the large rivers are excepted, but what produces some species of the whortleberry. The most common species are, the *vaccinium arboreum*, chiefly west of the delta of the Mississippi, on thin level wood land; *vaccinium resinosum*, in the pine forests, both east and west of the Mississippi; and the *vaccinium stamineum*, in the same places with the *vaccinium resinosum*. The other fruit trees, either native or exotic, are unimportant in a general view. Much will be done by time and an in-

creased population, in this as in all other branches of agriculture.

A circumstance that has been overlooked, has contributed to retard the introduction of plants and fruits into Louisiana. Most of the valuable vegetables have been transplanted from the West India Islands. It now remains no longer doubtful, but that the same laws of organization, that oppose the introduction of animals from one climate to another, impede vegetables also. If the orange tree of Spain or Sicily, and the sugar plant of the same places were introduced into Louisiana, the most beneficial consequences would no doubt result.

This sketch of the various plants that are or may be cultivated in southern Louisiana, though brief, will give a true, if not an extended idea of the facility with which the comforts of life can be procured by man in this region; as far as his food is concerned.

The sugar cane, forming the great link that unites the plants that are necessary to man's existence with those that administer to his habits of luxury, is perhaps after the former the most valuable vegetable cultivated on the globe. Since the introduction of the sugar cane on the banks of the Mississippi, Lafourche, and Teche, its culture has continually increased. From the circumstances of the moment, great encouragement has been given to the sale of Louisiana sugars.

The importance of this branch of culture will warrant a more extensive detail, than would be justifiable upon other subjects of less consequence, or more generally known.

It has always been, and no doubt will long remain doubtful, how far north the sugar cane can be cultivat-

ed. Much depends upon soil, situation, water courses, and other local circumstances.

In the Louisianian almanac for 1813, was published, a letter from the author of these tracts on the subject of the cultivation of sugar cane in Louisiana. An opinion given in that letter, that the existence of the sugar cane could not extend far north of the orange tree, has been contested by many. How correctly this opinion is founded on fact, time must determine; but hitherto in all parts of the globe, these two vegetables have been found to submit to cold at nearly the same limit of latitude. In Louisiana, lat. $30^{\circ} 20'$ N. may be drawn as the line of demarkation of the sugar plant; but how far the natural flexibility of vegetable life may enable the cane in future to perfect itself in a shorter time, and of course escape the effects of early or late frosts, it is impossible now to determine.

Climate, in attempering plants, hastens their approach to ripeness, rather than secures their juices from destruction by frost. This remark is exemplified in all the solanums, (Irish potatoe, peppers, and egg-fruit,) whose leaves are easily killed by the slightest degree of freezing. The sugar cane may also, no doubt, be reared beyond where its juices will be in quantity sufficient to reward its cultivators.

The following line includes all the territorial surface upon which the sugar cane has yet been attempted in the state of Louisiana. Beginning at the Rigolets, and advancing through lakes Pontchartrain and Maurepas, and up the Amite and Iberville rivers, to the Mississippi; thence up the latter stream, including the settlements at Point Coupé, and Fausse Riviere; thence west to Opelousas, including, in that country and Attacapas, only the shores of the Teche and a very small

spot on Atchafalaya; thence along the coast of the gulph of Mexico, to the place of beginning.

All other places in the state, where the sugar plant is found, it has been planted rather from curiosit than from views of utility, or from a wish to make essays upon the possibility of advantageously extending its culture.

The above designated tract extends over about 10,000 square miles, or 6,400,000 acres of land. All this expanse being alluvial, such part of the surface as can be reduced under culture will produce cane; but it is extremely difficult to determine the respective extent that may be cultivated, from that of lakes, and irreclaimable swamps, that set man and his improvements at defiance.

The rivers, bayous, and lakes, are so mingled, intersect each other in such intricate mazes, that no absolute certainty can be attained; but I am confident, that on one-tenth sugar may be cultivated. This would give 640,000 acres without including the Vermilion lands, or those of Mermentau, and many other streams upon which the sugar cane has never been planted, but where the cane may be perfected. Perhaps in stating the sugar lands of the state of Louisiana at 1,000,000 of acres, no great error would be committed. This estimate exceeds the one-thirtieth part of the whole territorial surface of the state. Deducting from this area three-fourths, for all the other objects of agriculture, would leave a nett extent of 250,000 acres for the sugar plant. It may with safety be concluded, that long before the state of Louisiana is brought to the utmost point of cultivation, nearly the latter area will be appropriated to sugar.

Like all other crops, sugar varies in its production

extremely on different lands, and from local position; more than two thousand pounds having been made from one acre on new sandy land; though this quantity is at least double the average produce. Intelligent men on the Mississippi bank, consider 1000 pounds, as a medium crop; but there are many reasons to think that quantity rather above the real weight that could be made per acre on the assumed extent. I have chosen eight hundred pounds as a prudent mean, that may be rather too low than too high an estimate.

It will however be found, that reducing the surface to 250,000 acres, and the annual produce to 800 pounds per acre, that two hundred millions of pounds weight of sugar may be made yearly in the state of Louisiana, without encroaching too largely upon other branches of agricultural economy. This calculation being on the most reduced scale, exhibits one of the many invaluable advantages resulting to the United States from possessing the delta of the Mississippi*.

* Whilst the first edition of this work was in the press, the following article made its appearance in Niles' Weekly Register. I have inserted it entire in a note; as the information contained is relevant to my subject. Respecting its production on Red river, and its exemption in those places from destruction by frost, I am the more inclined to give credence to the fact, from the known flexibility of vegetable life; though the lands in question are above the limit I have assigned in the text to sugar cane. With both the gentlemen whose names are mentioned, the author of this work is acquainted; and can vouch for the respectability of their characters.

Should the lands on Red river, as high as Natchitoches produce the sugar cane, so likewise will those of Ouachitta, Tensaw river, Aux Beouf, Sicily Island, Black river, Bayou Boeuf, Bayou Crocodile, all Opelousas where the soil will admit of that vegetable, Bayou Petite Prairie, Bayou Rouge, all the border of the Mississippi, as high as Natchez, all the lands of West Florida, included in the state of

It will be seen by comparison, that the inhabitants of southern Louisiana have gained even more than the inhabitants of the United States. The advantages accruing to the people of the United States is not in gaining sugar cheaper, but merely having that valuable article within their own domain, of course their supplies not

Louisiana, and all the rich river lands of the state of Mississippi, and Alabama territory as high as the latitude of Natchitoches. Should the essay made by these gentlemen be verified by future experience, the sugar land near and included in the delta of the Mississippi will be more than quadrupled, or exceed four million of acres ; which at a reduced production of eight hundred pounds per acre, would yield three thousand two hundred million pounds of sugar annually.

I have already shown that about one fourth part of the actual area, upon which sugar cane can be reared, ought to be considered as the probable extent upon which that vegetable will ever be cultivated. With all this reduction, however, there is little doubt but that the state of Louisiana and neighbouring places can be made to produce an immense quantity of sugar. I will only observe, that great caution ought to be used in publishing statements so much calculated to awaken individual avidity. No experiment ought to be implicitly received, or condemned.

“ THE CULTIVATION OF THE CANE:

“ The Red River Lands.

“ The editor of the Weekly Register has been favoured with some information as to the progressive cultivation of the sugar cane in Louisiana, which he thinks cannot fail to interest all who delight to ascertain the resources and capacities of our country to supply the wants and gratify the wishes of its people. The march to independence is steady and certain—exterior circumstances have palsied the commercial spirit and checked the manufacturing zeal of our citizens ; but the present depression of these is not more likely to last, than their former activity was to be expected to continue.—Each state grew out of *artificial* circumstances, produced by the condition of things in Europe, and must find their *natural* level.

liable to the accidents of war with a foreign state; but the planters and land owners of the state have gained the advance upon their property, and the additional security for the culture of the most valuable vegetable that the climate of the United States will admit. As an integral part of the United States, Louisiana is the

"I have several times made the "round assertion," as it may be considered, that the United States' lands in this section of our country, if carefully managed, will, of themselves, produce an amount equal to that of the present national debt—for the public own vast tracts of country as well calculated as any in the world for cultivating the most advantageous products of the soil, *sugar* and *cotton*, at their present and probable future prices. I have been much pleased to feel assured that this result may be confidently expected. In a pecuniary point of view then, the purchase of the territory of *Louisiana* was a master stroke of policy—but its value in a political consideration is beyond estimation, being *immense*; as it must appear to every man on a moment's reflection.

"The certificates below, are those of two very respectable gentlemen living on the *Red River*, about three miles below the town of Natchitoches, which is in lat. $31^{\circ} 46' N.$ Our correspondent observes, that the experiments made by others are equally satisfactory, and that many of the most wealthy planters of that neighbourhood were about to change their crops from cotton to sugar—adding, that although he believes no lands in the United States are equal to those of that river for the quantity of cotton they give the planter, yet that the cane will be found a more profitable crop, as being less liable to accident or disease, and requiring less labour to bring it into the market,—one acre in cane being also equal in value to at least three acres of cotton. He says, that about 200 acres of land on the *Red River* are this year planted with the cane, and he calculates that sugar will soon become the grand staple of the country, and greatly exceed the quantity that can be made on the *Mississippi*. For, he observes—"Our lands proper for sugar plantations, are very extensive; they are richer, the soil warmer, and the vegetation quicker than those of the *Mississippi*; our cane grows much faster in the months of May and June, than it does on that river, which is accounted for from the extreme coldness of the *Mississippi* water at that season, flow-

only place, where the sugar plant can be produced to advantage. Immersed in the Spanish dominions, the inhabitants in the delta of the Mississippi would occupy a spot infinitely less favourable to sugar than Cuba, Porto Rico, the sea coast of the gulph of Mexico, from Vera Cruz to Guiana, together with immense other

ing directly from regions of ice and snow. This, it is thought, fully, if not more, than compensates for the difference of latitude."—*Editor.*

" The subscriber, planter at Natchitoches, in the state of Louisiana, certifies, that his experiments in the cultivation of the sugar cane, have produced him at the rate of 2,500 pounds of sugar of a very superior quality, per arpent. And that he is persuaded, if the cane be well cultivated, and carefully managed, that it will produce 3,000 pounds per arpent—first cut.

" Given under my hand this 29th Dec. 1815.

" T. BOSSIE."

Copy of a letter from Samuel Davenport, Esq. to Dr. John Sibley, on the subject of the cultivation of sugar cane, on Red River.

" DEAR SIR—From conversations I had with several of the most observant sugar planters near Orleans, as well as from my own observations, I was convinced that the sugar cane was not so tender a plant as it was thought to be, when first cultivated in Louisiana—that it naturalized itself to climate and certain qualities of soil with facility; and was induced to make trial of it on our Red river lands: consequently, in 1814, had three-fourths of an arpent of plants brought from the coast, which planted five arpents at four feet distance the rows. It grew luxuriantly, and ripened to a considerable height. In the fall, I had, as an essay, three-fourths of an arpent of ground, which produced me near 1000 wt. of good sugar; the balance I planted last spring, which gave about twenty arpents, eight of which I manufactured, and has produced me about 9,000 wt. of a superior quality, besides molasses, &c. although I lost considerable of juice and syrup from the imperfection of my machinery. I am encouraged to continue, and I think will be enabled to grind from thirty to forty arpents next season. The fertility and superior quality of our soil, the local situation of our lands on the margin of the river, with the considerable exhalations

tracts in the almost unlimited domain of Spain in the two Americas.

It is apparent from Humboldt, and other writers, how extensively the sugar plant is now established in the Spanish territories, and when we glance an eye over the area upon which cane may be cultivated within the tropics, it demands no great political sagacity to discover, that its existence in the delta of the Mississippi is rather the effect of moral than physical causes.

which take place during the fall season from its waters impregnated with saline particles, prevent the early frosts from affecting vegetation until much later than on the neighbouring highlands, and convinces me, makes up amply for the difference of latitude between this and the coast above Orleans, where they succeeded in a very high degree in making sugar.

“Upon the whole, I think we may safely calculate upon 1000 weight per arpent, one year with another, besides molasses, &c. Some objections are made to our prospects of success on the ground that the root will not produce a second and a third year, as on the coast of the Mississippi, on account of the hard frosts that prevail in winter. In fact, last season, but very few of mine survived the severe and uncommon winter we had; but I calculate much on their producing next season. Yet should we fail in our expectation from the stubble, the culture of the sugar cane will still be productive by planting our fall crop every year; for instance, one-fifth of the whole will plant the same ground, leaving four-fifths to grind and manufacture into sugar—the produce of which, as above stated, will be worth more than the whole planted in cotton, at the highest prices and most sanguine calculations. The sugar cane is much easier raised and prepared for market than the cotton crop, and requires less work than corn, while growing. Another season, I am confident, will fully determine our Red river planters in favour of the cultivation of sugar cane, and enhance much the value of lands in our parish.

“I am, sir, very respectfully,

“Your obedient, humble servant,

“S. DAVENPORT

“Natchitoches, Jan. 3, 1816.”

Those moral causes would have a reverse effect upon the administrators of the Spanish and American governments. In the calculations of the latter, the encouragement to make sugar in their own department of the earth would operate with more benefit to Louisiana, as in that place alone, in the United States, can sugar in large quantities be produced—whereas the legislature of Spain would consider itself morally bound to give equal facility to the inhabitants of regions more favoured by nature than Louisiana.

In placing the advantages of human labour, when employed in the production of a staple such as sugar or cotton, contrasted tables of the expense, time, and quantum of force, must give the clearest ideas to the mind. I have drawn the following comparative table of sugar, rice, indigo, cotton and tobacco; which in their turn have been, and may again be the staples of the state of Louisiana.

TABLE of the benefits resulting from fifty effective workmen on a Farm in Louisiana.

Staple.	Amount.	Price.	Nett Value.	Annual revenue from each hand employed	Acres in cultivation.	Remarks.
Sugar,	150,000 lbs. 3 cts. per lb	\$12,000	\$240	150	0,250,000	The extent that may be found in the state of Louisiana, upon which each staple may be cultivated
Rice,	700 barrels, \$6 per barrel	\$1,200	\$84	100	0,250,000	Rice demanding more labour to an equal surface, and producing more, if the rice lands were brought into culture, say 250,000 acres, which yielding 7 barrels per acre, at 6 dollars per barrel, would produce an annual revenue of 10,500,000 dollars
Cotton,	60,000 lbs. 15 cts. per lb	\$9,000	\$180	250	2,400,000	The cotton lands of the state of Louisiana, will average a produce of 240 pounds of clean cotton per acre: this would amount to 576,000,000 pounds, if all the cotton lands were brought into cultivation, leaving a revenue of 85,400,000 dollars.
Indigo,	7,000 lb.	\$1 per lb.	\$7,000	\$140		
Tobacco,	60,000 lbs.	\$10 per cwt.	\$5,357 12½	\$107 +		
						1,500,000

NOTE. The whole extent of the state of Louisiana, after deducting one-fifth for swamps, rivers, pine barrens, and other irreclaimable tracts, extends over 23,480,320 American acres. The space allotted for sugar has been descended on, a round sum of 2,400,000 acres was assumed for cotton, amounting to little more than one-tenth of the whole surface. Indigo demanding a richer soil but a similar climate with cotton, 2,000,000 cannot greatly depart from the surface upon which that staple may be cultivated. Tobacco can be raised in all parts of the state, but the soil suitable to its growth does not differ widely from that necessary for sugar—a deep vegetable loam.

The molasses is omitted to be included with sugar, being left as a set off against the incidental expense attending the latter. With this diminution, sugar, with all the other staples, may be taken agreeable to their comparative values in the table. Their respective expense will be found to preserve nearly the same medium with the price.

No subject has been more agitated, than the number of effective hands that can be most beneficially employed on one farm. I have chosen fifty as the basis of the foregoing table; as the most suitable number to estimate the value of human labour. From some experience in the culture of cotton, I have good reason to believe a decrement of profit will ensue, from employing more than thirty or forty hands, under the most skilful agriculturalist.

For reasons already stated, I have chosen human labour, rather than cultivated surface, as the data upon which the foregoing table is founded. It is to be understood, that in addition to the efficient sums standing opposed to each staple, that the same persons cultivate also maize, and other vegetables sufficient for their own support. The result of the table gives the nett revenue arising from each article respectively. In addition to the certainty of sale, it is demonstrated that sugar is far the most profitable article in the estimate. The capital necessary to create a sugar estate, exceeds what would be necessary for any other agricultural establishment; but falls short of what is generally supposed. Forty thousand dollars is an ample sum, to enable a planter to purchase slaves and land, sufficient for the employment of fifty hands, on a sugar estate; as well as to erect all the necessary buildings.

Few have attempted sugar on a small scale; but the

correctness of the opinion may be doubted, that only very large capitals can be employed to advantage on a sugar farm. No good reason, except we admit custom as logic, can be given why ten, fifteen, or twenty men, may not make a proportionate quantity of sugar, as well as of cotton, rice, or maize.

From the annexed table it will be seen, that the comparative value of human labour, when employed upon the two great staples of the state of Louisiana, sugar and cotton, is as three to four. From the greater extent, and variety of land suitable to the culture of cotton, a much greater general revenue may be drawn from it, than can be drawn from sugar.

When the state of Louisiana is brought into cultivation far from the maximum, four hundred thousand labourers may be employed in making cotton, three hundred thousand on sugar, and one hundred thousand in the production of rice. This population of eight hundred thousand people would yield above one hundred and thirty millions of dollars, at the most reduced prices of the different products. When the elements are examined separately, this rich reward to the industry of man, that is promised by southern Louisiana, will not appear delusive.

Whether in a moral point of view, the enormous mass of wealth that will necessarily accumulate near the mouth of the Mississippi, will constitute a national benefit, or disadvantage, is a mere speculative inquiry, that education, caprice and other circumstances, or pre-conceived opinion, will influence men to answer differently. In presenting this sketch of a country whose importance is every moment developing, I have studied to strip the picture of false colouring. The esti-

mates are founded in nature; and if erroneous, the proper correctives are always applicable.

In every part of the United States, the farmer, by placing his capital and revenue, as they now stand, in opposition to what they would produce if removed into Louisiana, has the means to determine for, and against emigration. This work has not been written to answer any other purpose, than to exhibit a faithful delineation of an useful and interesting portion of the earth.

It has been shown that, until the population of the state of Louisiana exceeds eight hundred thousand effective labouring men, employed in agriculture, the annual reward of human labour must exceed one hundred and eighty dollars, to each individual.

Little has been said respecting artisans of any kind—little need be said respecting a class of men, whose situation depends upon the advance or retardation of agriculture and commerce. Establish in any given place the value of human labour in the production of raw material, and the value of the same labour must in that place be estimated by a scale commensurate with the price of the great staples.

When sugar, cotton, rice and indigo, give a high value in market, every hand will be employed in their production, except those necessary for the common arts of life, manufacture of farming tools, clothing, and building. Consequently, when agriculture and commerce flourish, all kinds of mechanical professions must be profitable.

It is a fact that admits no denial, that the individual in society, who depends upon his daily labour for support, however high may be the wages of his industry, encounters difficulties, unknown to agriculturalists or

perhaps even merchants. The mechanic labours for a stipulated sum, generally in money; which sum when gained, is usually applied to purchase the necessaries of life; those necessaries are continually changing in respect to their nominal price and real value, whilst labour, less flexible, remains more stationary. Hence the slightest attention to the real history of man will convince the least observing, that in times of public distress the first and loudest clamors proceed from the mouths of artisans. This arises not from a more restless spirit inherent in such men, but from the real nature of their situation.

The merchant, whose gains are generally much greater than the mechanic, may have the mortification to behold what is called stagnation in business; but his family cannot either starve or perish, for want of necessities they actually possess. The planter may be unable to sell his staple, but his farm feeds his family, independent of fluctuations of trade.

These reflections are not introduced to discourage the emigration of mechanics to Louisiana. There are few places where their services are better paid; but the contrast is drawn to exhibit the enormous advantage that the agricultural emigrant has over those of the mechanical professions; in estimating the difficulties attending the removal to and fixing a residence in the state of Louisiana; to the former class of emigrants the prices of the necessities and conveniences of life are nothing; to the latter, every thing.

The discovery of Cotton, the most valuable of all vegetable substances not used as food, was perhaps the greatest improvement ever made on the subject of clothing. Its introduction into use deserves very serious attention, in every speculative work on Louisiana.

So much has been introduced, relative to cotton compared with sugar, as to abridge the necessary enlargement of the subject.

Unlike sugar cane, cotton is unlimited by difference of soil or climate in southern Louisiana. Flexible in its texture, cotton grows on almost every kind of land; more rapid than the sugar plant in the developement of its organization, its life is shorter, of course less liable to fall by frost.

From one to any given number of hands may be employed in raising cotton; perhaps no vegetable, unfit for food, demands less capital to commence its culture. Most families have commenced their career in southern Louisiana by cotton.

Of all productions that man has appropriated to the gratification of his wants, cotton wool has advanced most rapidly into use. We may safely conclude, that unlike objects of caprice or luxury, cotton can never become retrograde in any great degree. The indefinite forms into which this substance can be manufactured, its cheapness and elegance, and above all, its real uses, secure it like the cereal gramina, the olive, and metallic matter, an existence amongst objects most familiar to the wants of human nature, commensurate with the duration of the present order of things in the world.

Several years past, upwards of one hundred million pounds of cotton wool was sent into Europe, mostly from America—upwards of eighty millions from the United States. Many persons have contended, that this great importation of cotton, arose from momentary circumstances; but a very superficial review of the relative situation of Europe and America must remove this impression.

Glancing an eye over the American and European

nations, the extensive disproportion between the population and territorial surface of those great portions of the earth, must present a striking picture of moral and physical inequality.

Maugre revolutions of power, opposed to every political change, and despite of all fiscal arrangements, except high duties on foreign goods, the course of commerce will be for ages to come as it has been for two centuries past—carrying the raw material from America to Europe, and taking the return in manfuactured articles. This barter has its origin in nature, and must continue until things change materially their present relative proportion. It is this barter, whose interruption has shaken the very basis of society from the Wolga to the Mississippi.

In Europe, from the scarcity of land in most parts, barrenness of many places, and the overcharge of people every where, the natural bent of human industry is to rear the necessaries of life, and purchase superfluities from foreign markets—every spot is precious to a people crowded into masses on a small extent. Thousands are driven by necessity to have recourse to manufactures, from the impossibility to occupy themselves in agriculture. In such places animals will be dispensed with in proportion as the benefits derived from their use can more easily be procured from foreign sources. Hence cotton must for many ages encroach upon wool, in their respective application as articles of clothing.

At the moment this article was written, the people of Europe, with whom we have commercial relations, exceeds the people of the United States of America in a ratio exceeding nine to one.

The average land possessed by an individual in Eu-

rope, in the thickly peopled parts; France, Spain, Italy, Germany, England, and the Netherlands, is about five English acres. The American population roam over more than one hundred acres to each individual, or have twenty-fold more surface to exist upon than is possessed by an individual in the compactly inhabited European nations.

Supposing the latter to remain stationary, and the former to double every fifty years, more than two centuries must elapse, before an equilibrium can ensue. The space now occupied by the United States' population, may be assumed at 1,500,000 square miles, or 960,000,000 acres; and the present number of inhabitants concerned in the calculation 9,000,000.

Amongst European nations, the proportion of people that hire, must be enormously greater than their employers; therefore, human labour cheap. In America, the number that are compelled to sell their services to others, few; consequently, human labour is dear*.

* The following will tend to expose the falsity of an idea, very common, and very unfounded, that it arises from the scarcity of men in the United States, that human labour is high in price, and hard to procure.

Where most men labour for themselves, as in the United States, those whose pursuits compel them to purchase human labour, must give a price commensurate to the value of the same services if performed upon his own account by the hireling. Generally, in fact, such is the spirit of independence instilled by free institutions, that men will prefer less pecuniary profit, whilst they retain their personal, though less productive pursuits; hence manufacturers and others who hire, are compelled to pay a premium above the mere value of the labour they purchase.

An observing writer has, from his own personal knowledge, made the following estimate:

" After having compared the mean product of the earth in Mexico, Buenos Ayres, the United States, and France: in the colder parts of the Vice royalty of Mexico, day labour is valued at twenty-five cents; but in the warmer provinces, where hands are scarce, and men are idle, day labour is thirty-one and a half cents.

" This price must appear very small, when we consider the metallic wealth

In Mexico, where few act on their own account, but sell their labour to others, it is of course low in value. In estimating the real benefit that a human being can gain by his daily industry, a correct contrast must be drawn between the nominal sum he receives, and what nominal sums he must pay for the indispensable articles of subsistence. On comparison of the prices of labour and articles of food and clothing, in the United States and Mexico, the difference of diurnal gain is in favour of the former, as three to eight. As far as the mere scarcity of men could influence the price of their labour, the day's work would be higher in Mexico than in the United States. Fewer have profitable demand for human services in Mexico ; many have that demand in the United States ; from these causes, and not from scarcity of men in one case, and their abundance in another, does the difference in the value of their work arise.

Taken then, on the general scale, during the existence of the present order of things, it physically follows, that the people of the United States will remain cultivators, rather than manufacturers. Until the lapse of time, and the operations of nature, produce an equilibrium between the people of the American continent and the eastern, no real revolution can take place in the relations of commerce, between those two great

of the country ; and view the great quantity of silver constantly in circulation.

“ In the United States, labour is about eighty cents per diem.

“ The mean price of wheat in the Mexican provinces, is four or five dollars for two hundred pounds ; or this is the price when purchased from the farmer in the country. In Paris, for several years, two hundred pounds of wheat flour cost thirty francs, equal to six dollars. In Mexico, the expense of transport swells the price of wheat above the ordinary price in the country.”

Humboldt.

portions of the earth. Whilst the American citizen can find the path open and free to an independent establishment, he will never sell his labour at any price to another.

In moments of war, or other temporary interruptions of the ordinary operations of society, manufactures may be established in the United States; but owing their existence to accident, they will have continual embarrassment to encounter. It must be very difficult for a man, or a society, to preserve manufacturing establishments where individual labour cannot be procured for less than seven or eight, opposed to other men, or other societies, who can procure the same quantum of labour, for three or four metallic signs. Nothing, indeed, but a system of absolute seclusion of all communication with the eastern world could support widely extended manufacturing establishments in the United States at the present time.

I have not entered into any detail upon the feeding of animals, though a very important branch of domestic economy. The winters of the state of Louisiana are, particularly in the southern parts, so short and mild, that much of the labour expended on procuring provender for horses and cattle is saved. But like almost every other instance where men have little to do, that little is neglected. There can be no doubt that great advantage would arise from more attention to the making and saving of hay.

There is no richer hay than the blades of maize, and none so cheaply and easily procured; yet annually, thousands of tons of this valuable article is suffered to rot in the fields.

The climate is not favourable to timothy; clover succeeds better, but feels the force of a too warm sun.

Luzerne would, no doubt, be much preferable to either, and would be in a genial climate.

The following article appeared lately in our public prints. I have inserted it in this place for various reasons. Let the qualities of the lupinella be what it may, it deserves a fair trial in America. If this plant enriches the soil upon which it grows, its introduction into the United States will mark an era in its history. Millions of acres will be rendered habitable, that are now considered sterile pine forests. Of this species of soil, there is, in Louisiana, Mississippi, Alabama, and Georgia, at least forty millions of acres. If any plant, having the valuable properties ascribed to the lupinella, could be abundantly produced upon the pine soil, it would add an immense sum to our national wealth.

After the cereal gramina, there are no species of vegetables to which man is so much indebted as to the papilionaceous flowering plants; there are no vegetables that come to maturity on so great diversity of soil, and there is none that domestic animals devour with so much avidity.

In the early settlement of the waters of the Ohio and Mississippi, the wild pea gave that aid to those persons who formed their locations in the northern, that the arundo-gigantea afforded to those who settled in the southern parts.

I have many times, in traversing the pine forests, and viewing the limpid streams of water, felt regret that places where health seemed to breathe in every wind, should be rendered comparatively uninhabitable from the sterility of the soil.

“*Lupinella*.—The seed of this most valuable species of grass has been transmitted by our consul at Leghorn to the secretary of the treasury, which is thus spoken

of in a letter from him to the acting governor of Georgia,—published in the Georgia Journal of the 10th inst.

“ I have lately received from our consul at Leghorn, in Italy, a parcel of the lupinella seed*, which is represented as the finest grass cultivated in that country, for the quantity and richness of the hay; the preference felt for it by all animals, and its fertilizing effects upon the land in which it is cultivated. In Italy, it is sown in March and October; it is cut with a sickle to avoid shaking off the blossoms; bound up in bundles of 7lbs. and fed to working beasts without grain, as it is sufficiently nutritive of itself.

“ *Three years cultivation of this grass enriches the poorest land so much, that two successive and abundant crops of grain are produced without manure.*—This is the account which I have received of it from Mr. Appleton the consul. As it succeeds in Italy, there is every reason to believe that it will succeed in Georgia. The quantity I have sent you, will enable you to furnish several of our acquaintances with enough to put them in stock of it, and thereby multiply the chances of success. It is sown, I presume, broad cast, but drills will be more productive for seed. I am convinced that when sown for hay it ought to be sown thick, as a certain means of keeping the crab grass under. When it is sowed, it may run some risk of assault from this formidable adversary, but I am persuaded it will be diminished by the thickness of the lupinella.”

* Diadelphia Decandria, and in Linnaeus' Natural Method, ranking under the 32d order Papilionacei. There are, in America, many native plants of this natural family that deserve attention from the experimental farmer.

STATISTICS

OF THE

STATE OF LOUISIANA.

CHAP. VII.

GENERAL OBSERVATIONS ON THE CLIMATE OF THE DELTA OF THE MISSISSIPPI AND ADJACENT COUNTRIES.

“ —— What makes the nations smile,
“ Improves their soil, and gives them double suns,
“ And why they pine beneath the brightest skies,
“ In nature’s richest lap.”

THOMSON.

THE subject of the salubrity of the climate of Louisiana, is entered upon with considerable solicitude, in consequence of the almost *universal*, but, I believe, unfounded prepossession respecting its unhealthiness.

Perhaps no subject ever was more misunderstood than the effect of particular climates on the human frame; and none can more deeply interest the faculties of mankind. Our species are prone to migrate, and their range is more extensive than that of any other animal.

The partiality we have for the place of our birth may be superseded by necessity; and curiosity incites us to wander beyond its narrow precincts;—the ice of Spitzbergen and the heats of the coast of Africa or the

East India Islands, have alike failed to awe mankind ; dangers, however formidable, have been braved by men influenced by the love of novelty, or the more ardent desire of wealth. But from a proneness to consider the place of our nativity in a favourable light, we are apt, both in a moral and physical view, to exaggerate the effects of climate. The terms north and south, though merely relative, have the most unbounded influence on our opinions.

The inhabitants of St. Petersburg and Moscow have the same ideas respecting the Taurida, that the people of Boston and New York have of Lower Louisiana. The opinion has universally prevailed, that the intermediate space between any given spot and the tropics, was more destructive to life, proportionate to polar distance ; and it may be observed that this prepossession has been too lasting and general to be unfounded in fact ; but may it not be rationally replied, that the appearances that excite fear, and foster love of country, produce the same effect at all times and places ?

The facility of raising vegetable and animal nutriment, increases as we approach the equator ; of course the supporting of human existence is rendered more easy near and within the tropics ; so that if some powerful restrictions were not opposed to southern migration, we would not find more than four-fifths of mankind north of lat. 30° , as some of the finest and most favoured regions south of that limit are yet wilderness.

A prevailing notion, that a removal from a northern to a southern region is tantamount to an abridgment of the life of the emigrant, prevails every where ;

but in no place with more currency than in the United States.

Mr. James Tyler composed some years since a large volume upon the plague and yellow fever. In page 482 we find the following: "Every one therefore who comes from a cold to a warm climate, must in some degree have his blood liquefied, and in a certain degree rendered more acrimonious than before. This acrimony may undoubtedly be augmented by certain causes, and by none more probably than immoderate drinking of ardent spirits.

"Every one therefore who comes from a cold country to a warm one, especially where the air is also moist, may consider himself as already diseased, at least in comparison of what he was when at home; for the blood is now exposed to a greater degree of heat, and consequently is about to absorb, or rather may be considered as in the act of absorbing more, and consequently of changing from a thicker to a thinner or more fluid state; the latter being the natural state of the blood in warm countries."

This passage is not quoted on account of its elegance of expression, or the boldness of its assertions, but as it contains in one view the too commonly received opinions respecting southern migration. Whether the blood becomes liquefied as a man approaches southward, and if so, whether this liquefient state of the blood super-induces disease, must be left for medical experiment to determine. The drinking of ardent spirits in any climate produces so few benefits, and such an accumulation of evils, that its use cannot be too severely condemned. Alcohol taken into the human system, with all its deleterious and demoralizing consequences, has been in all countries where its use

has been tolerated, the parent of the greatest evils that afflict mankind. But respecting ardent spirits, people are misled by attachment to a received opinion, as they frequently are on other subjects ; though those potent liquids are sufficiently productive of disorders both bodily and mental, to justify their total prohibition ; yet it may be doubted whether many of the most destructive diseases incident to any given place, do not exert their influence without any super-inducing cause from regimen. The plague, the most destructive of all disorders that terminate human existence, has been most prevalent and deadly in countries where abstinence from distilled liquors is a religious precept, enforced by municipal law.

Another and common subject upon which most people detail their old opinions without examination, is climate.

The subject is too serious to admit levity, but it is difficult to refrain from smiling to hear persons almost uniformly ascribing the title of northern to the place of their residence, and claiming an exemption from tropical diseases from their position, and others more northward using the same rhetoric. The inhabitants of the eastern or New England states condemn Virginia, the Carolinas, and Kentucky, for the same reasons that the inhabitants of the latter places pass sentence on Lower Louisiana. The people of Lower Louisiana derive their epidemics from the West Indies, whilst the residents of the West Indies as loudly proclaim the importation of their epidemics from Bulam, Siam, the coast of Africa, or some other distant and arid region.

The estuaries of large rivers have always been held to be the fruitful seats of disease : how far this idea is entitled to credit, remains yet undetermined ; and an

inquiry into the truth or falsity of the opinion, will necessarily include all that can or need be said upon the climate of Lower Louisiana.

How far deleterious miasmata can be conveyed by winds, has never yet been clearly ascertained, but the fact must be admitted, that foul air arises from some foreign substance uniting itself to the common air and rendering it more dense. The poison in such case only seeks a medium of conveyance, and gradually subsides by its own weight. There is good reason to believe that diseases that owe their origin to the atmosphere derive their existence from causes that influence that element, at or very near the place of residence of the patient.

Stagnant water has ever been considered as the fruitful source of disease. Admitting the fact, the causes that lead to the effect remain next to be explained. The deadly effluvia that imperceptibly arises from water in a stagnant state, must come from the putrefaction of animal and vegetable matter. Pure water when confined in hogsheads, or in ships performing long voyages over tropical, regions, is innocuous.

We shall now take a brief survey of the state of water throughout the year, in Lower Louisiana.

The spring floods of the Mississippi and Red river, depend for their commencement, elevation, and duration, upon the seasons far north of the delta of the Mississippi. In common years, the rise begins about the first of March, and increases rapidly until the river's bed, glutted, throws the superfluous water through innumerable channels, into the back reservoirs. The increase of elevation is then slow, and a diurnal decrement of rise is perceived, owing to the continually increased surface that must be overflowed. The distance

of those reservoirs from the principal rivers, and their extent, varies greatly in different places from the 33° N. lat to the sea.

Where the curve of 33° crosses the Mississippi, it is about six miles from the river to bayou Maçon; west of which bayou the high pine woods exhibit themselves, limiting the low ground of the Mississippi to six miles in width. Bayou Maçon derives its source from the pine woods, and from a lake running parallel to the Mississippi, above the 33°. Bayou Maçon pursues a general south course, whilst the Mississippi inclines eastward. Twenty miles south of the 33°, and on the west side, occurs lake Providence. This lake was evidently once a bend of the Mississippi. Out of the south bend of lake Providence issues the Tensaw river. Many outlets occur between the head of the Tensaw and the mouth of Red river, all of which carry their waters into the Tensaw, Black, or Red river. But few lakes, in the true acceptation of the term, are found. The banks of the river are generally above overflow, and are composed of the most productive soil, gradually sloping back by an inclination, that gives from one-fourth to one and a half miles width, before the plain sinks beneath the surface of high water. Many lakes will be seen marked upon the map, but these are mere dilatations of the rivers.

In this region little or no morass is found; the land commonly called swamp, is merely land below the common level of high water, and is hard, solid, and dry, when the inundation subsides. The soil is in every respect different from marsh or swamp. A remark made by Mr. Noah Webster, in his history of epidemic and pestilential diseases, respecting the Nile, applies

to the Mississippi, and perhaps to all large rivers which flow through similar countries.

“ Egypt is a fertile country, containing not much marsh; but annually overflowed, and subject to most of the inconveniences of marshy countries, from the drying of its moist surface in very hot weather.”—The same author continues thus:—

“ The banks of the Euphrates and Tigris, are nearly in the same predicament; and Bussora is in Persia, what Cairo is in Egypt.”

A notion has prevailed in the face of truth, that the banks of the Mississippi abound with a great number of lakes, whose waters stagnate throughout the year; whereas the real fact is, that those places condemned to annual submersion, are great part of the year extremely deficient in water. North of Red river, the wide space between the Ouachitta and Mississippi, is either a cane brake along the water courses, or a hard dry stiff surface, when the flood has subsided. East of the river Mississippi, and immediately under the bluffs, runs a chain of small lakes, fed by numerous springs from the hills, which contain water continually; the effects on health are experienced by the frequency of bilious complaints in the fall months, in the neighbourhood of those reservoirs. It has been remarked, and there is reason to believe correctly, that the evil effects of stagnant water, extend but a very small distance.

The Red river abounds more with lakes than the Mississippi; but as has already been remarked, the Red river lakes are generally mere reservoirs, whose waters rise and subside with the river. Often the same lake, that in April, May, and June, contains ten feet depth of water, presents in the fall season an extensive meadow of succulent herbage. A lake west of Red river, and

lying about one and an half mile S. W. by W. of the town of Natchitoches, is an exception to the general remark on the Red river lakes. The lake now under observation is surrounded by pine hills, except the narrow inlet leading to Red river, and is about four miles long and two and an half miles wide ; presenting near its surface many decayed cypress trees. The conclusion is irresistible, that the ground occupied by the lake was formerly overflowed in the spring season, and dry on the retiring of the water ; but by the high banks that line its outlet to the river, falling into the channel, the waters were confined in the bottom, which killed the trees, whose stems now present the aspect of an old field, where the dead stumps remain. This fact adds force to another observation made in this work, that no large forest tree can vegetate with its root constantly immersed in water.* The cypress, that appears the child of humidity, dies when surrounded by a body of water, that constantly covers the earth out of which it grows.

The Ocatahoola, Saline, and Black river lakes, partake of the nature of those along Red river, and the region between Black river and the pine forests, is similar to that between the Ouachitta and the Mississippi river.

Some of the region east of Ouachitta, and south of the 33° N. lat. is covered with pine woods, which are high and dry. All the country on the waters of the Derbane and Ocatahoola above the lake on the latter, consists of a diversified surface, some pine flats, but mostly broken into hills and vallies, with many streams of excellent water. The timber is generally short leaved pine,† and different species of oak, intermixed with the

* Page 61.

† *Pinus Rigida*.

dogwood" (*cornus florida*.) The land is dry in the strictest sense of the word ; of poor quality. Some of the hills afford masses of loose sand stone, lying parallel to the horizon, and evidently in their primitive position. No metallic productions have yet been found, except some crude nodules of iron ore. The fossil kingdom in this tract presents to man that very useful anti-septic, common salt. How much the earth here assumes the curve of a sphere, is seen in the distance that the waters are kept back by the rise of the Mississippi and Red River. The Ouachitta is rendered stagnant for some distance above 32° 30' N. lat. The Ocatahoola, above the fork, as high as the road from Ouachitta to Natchitoches.

From the above survey of the waters north of Red river, it must evidently appear, that there exists but little of the sources of putrid exhalations, that have been generally placed in the tract in question. The fact justifies the theory, as the complaints of persons within those limits are generally bilious and not of bad type. Inflammatory and putrid complaints are rare, and epidemics or infectious disorders are yet unknown. Chronic and catarrhal cases are not frequent; though instances of the latter will exist in all countries where vicissitudes in the air are frequent and rapid. Rheumatisms and pulmonary cases are very rare, and when they do occur are seldom acute. S. W. of Red river, and between that river and the Sabine, the country is very much the same with that between the Ouachitta and Red rivers. Pine is here perhaps more predominant than on the N. E. side, but the soil and waters are much the same. There is, however, one manifest difference, the line of hills presents a bolder front towards the low lands. The back water does not rise above

the base of the hills, and the streams that flow out of them, are rapid in their descent, until they enter the low grounds, or alluvial tract. The countries out of which issue the head waters of the Calcasieu and Mermentau rivers, with the Bayous Boeuf and Crocodile, are of the description of dry pine woods.

South of Red river, and east of the hills to the Atchafalaya river, the low grounds present an intermixture of bayous and lakes, whose banks are covered with cane and palmetto brakes, and their surface is above annual overflow. The lakes are much more numerous, and larger than on the opposite side of Red river. It has been noted in the review of Red and Atchafalaya rivers, that a chain of small lakes winds along their right bank, which lakes augment in number and size descending the Atchafalaya. The great lakes east of Attacapas spread themselves over a large surface. All those reservoirs rise and fall with the rivers, but contain water throughout the year. Those lakes are slightly affected by the tides, though their waters are fresh. The Point Coupée island is partly high cane brake land ; or open woods and a hard soil subject to annual overflow ; but few lakes or marshes occur.

Leaving the rivers and lakes to the north, we find a new region winding along the sea shore ; this is the real marsh. The surface of the water is but little influenced in depression or elevation by rains or floods ; the tides are but low, not exceeding two feet even when aided by a south wind. It may be strongly suspected, that this marsh is much less influential in the production of disease, than we would at first view be led to expect, though it must be acknowledged that it is the most powerful cause that affects our climate. Giving credence to the correctness of the general be-

lief in the evil effects arising from the putrefaction of animal matter, an everlasting pestilence ought to rage along the gulph of Mexico, and depopulate every spot within its vicinity. The millions of testaceous fish, that annually die and rot on this coast, are numerous beyond all human calculation. The most noisome effluvia must continually arise from such a mass of putridity ; yet we find but few destructive consequences arising from a cause, that would to all human appearance, carry death on eagle wing. One circumstance may however correct, or lessen the mischief arising from the marshes opposite the state of Louisiana, the small comparative quantity of vegetable substances, that are decomposed in their waters. The marsh in question is in fact but a part of a border, that winds round the coast of North and South America, from the coast of New Jersey to that of Venezuela, with but very partial interruptions. I will here quote some observations made on this subject by Mr. Webster, in which good sense and humanity contend for pre-eminence. His observations will serve to show, that whatever evils may result from fens, or marshes, they are not monopolized by Louisiana.

“ Most of the coast of South America, from Cartagena to the Oronoke, is bordered with marsh, and is every where sickly.” Mr. Webster has added the same description from Cartagena to the Rio Grande, with but little variation ; he continues :—

“ But what shall we say to the marsh on our own shore ? The low swampy lands that border all the rivers in the flat country of Maryland, Virginia, and the Carolinas, and the immense tract of bog in Virginia, called the dismal ? The effects of them on the neighbouring inhabitants are well known—annual and almost universal intermittents, and often remittents.”

“ Is it not possible and probable, that the noxious exhalations from these vast hot beds of putrefaction, are borne on the southwesterly winds, which prevail almost constantly in June, July, and August, and which run parallel with the general tending of the coast, from Florida to New-York? Do they not impregnate the whole atmosphere, for a considerable breadth, and sweep the country from the eastern shore of the Chesapeake, to Philadelphia, New-Jersey, and in slighter degree to New-York? I do not give a positive opinion on this subject; but the annual prevalence of slight intermittents on York Island, and in the city, though far removed from any marsh, and ventilated by sea breezes, as well as washed by rapid tides, affords some ground to believe this suggestion.

“ It is confirmatory of this idea, that soon after leaving York Island towards the east, all intermittents disappear, unless in a very few places, where they proceed from obvious local causes. Now it must be observed, that the coast of the United States, runs generally from south-west to north-east; but at New-York, it takes a different course, and runs about east by north, for two hundred miles. This course soon carries the people on the shore, beyond the reach of the supposed stream of morbid vapour, from the southern marshes, whose course is with the south-westerly winds.

“ I am not attached to this idea; but it is in conformity with the opinion of the insalubrity of the Euxine winds, at Constantinople, and with the effects of the southerly Calabrian winds, blowing over the Pontine marshes towards Rome. Lancisius relates a remarkable fact. Thirty gentlemen and ladies went on a party of pleasure towards the mouth of the Tiber. The wind shifted suddenly, and blew from the marshes.

“ *Paludes Ostienses*” and twenty-nine of them were immediately seized with a tertian. If such was the effect of the vapours from those marshes, we may suppose the vast Pontine marsh, would poison the air to a much greater distance.

“ That the extensive morasses along our southern shore, are pregnant with mischief to that country is certain; that the people of Philadelphia and New-York, are affected by them is possible. It would therefore deserve consideration, whether the evil will not admit of a remedy. There are two modes of rendering marshy lands, and stagnating waters salubrious; one by draining the lands, and cultivating them. The other, by turning into them streams of running water. It is probable that most of the marsh, at the southward, being within reach of tides, and below high water is incapable of being drained. It is the Pontine region of North America. How far the second plan can be applied with success, I have not the local knowledge of the land and rivers to determine.

“ The classic reader will recollect the instance related in the history of Empedocles, the Sicilian philosopher and poet, who put an end to pestilential diseases among the Salacentii, by turning two streams of good water into the marshes from which they originated.

“ If there is a possibility of drying any of the lands now covered with poison, or of putting the dead water into motion, the United States have a vast interest in effecting that object; and expenses are not to be put in competition with the health and lives of our citizens.

“ The same remark is applicable to all the marshes in other parts of the country, as about some of the lakes; and to all smaller sources of disease, swamps, and ponds.

In every possible situation, when stagnant water contains vegetable substances in abundance, diseases must prevail. Running water, on the other hand, is salubrious. It not only does not exhale morbid air, but it generates fresh and pure air; at the same time it creates a gentle breeze, by its current, which helps to dissipate any noxious particles in its neighbourhood, which may arise from other sources.

“ People in the country cannot be too careful, in selecting a spot for their habitation. The question of continued health, or disease, of long life, or premature death, hangs very often upon the choice of a salubrious situation for a house. A farmer should never plant his dwelling by the side of a marsh. Whatever may be the situation of his land, he is inexcusable, if he builds his mansion within a mile of the sources of disease and death. Better for him to go a mile and a half to his daily labour, enjoying robust health, than to live within the circulation of poisonous vapours, afflicted by diseases, for three month in the year. And when a farmer has the misfortune to be obliged to labour occasionally, in the vicinity of stagnant water, he should be careful not to enter upon the ground early in the morning, before the noxious vapours have been raised and attenuated by the heat of the sun; nor should he continue there late in the evening.

“ People in the country should select hilly, or elevated situations for their houses, where the surface of the earth is dry, and there is a free circulation of pure air. There is another reason, the water on high ground is always better than in low swampy places. Water, in flat lands, stagnates beneath the surface as well as above, but on hills it is in constant motion. Hence, if men expect good water, they must seek for it on moun-

tains, hills, and rising grounds. The Arabian advice is, that houses should be set on high airy places, near fresh water."

The passages quoted will impressively apply to every place, where lakes, ponds, or other stagnant waters are found. One important circumstance seems to have escaped almost all writers on the subject of atmospheric influence ; that persons living in any given place, acquire a constitution of body suitable to their situation. Not properly attending to this fact has led to many fatal conclusions. A judgment formed of any given place, from the health of the old inhabitants, must lead to deductions too favourable. The health enjoyed by emigrants on their first arrival, affords the most decisive data, but the habits of the person, respecting cleanliness, temperance, and pursuits in life, ought to be brought into view, to render the conclusions clear and indisputable.

Most persons, who have emigrated to Louisiana, have removed from a cooler region, and have been influenced in their removal by views of interest. The far largest portion of emigrants, are men engaged in commercial pursuits, whose business necessarily exposes them to the inclemency of the seasons ; they generally reside in the climate the most deleterious months in the year, and are crowded along the Mississippi and a great portion in New Orleans. The lower class generally, and too many whose education and rank in society ought to give them ideas more correct, are intemperate in every respect. That men, thus circumstanced, and imprudent, should fall victims to disease and death, in an air new to their constitutions, ought never to excite Surprise. When men learn to attend to their own preservation, more than to accumu-

lation of money or sensual gratification, many heart-rending sighs, over names dear to the heart, will be spared.

The second class of emigrants, those who remove to Louisiana with an intention of forming permanent settlement, are generally influenced like the first, by motives of pecuniary consideration. Those persons remove almost uniformly in the winter months, enter the country of Lower Louisiana in the spring, when the heats are every moment increasing. Their bodies thus taken from one extreme to another, have every predisposition to contract the diseases natural to their new situation; and as if a removal instantaneously from a cold to a warm atmosphere, did not superinduce evils in sufficient abundance; emigrants almost universally choose situations along the rich margin of some river; commercial facility being the predominant object of the choice. It would be vain to multiply admonitory lessons, for the use of men who consider every thing beneath their notice that does not lead to their aggrandizement; but I may be permitted to insert some advice, useful to persons who yet believe existence of too high value to sport it away in the mere acquisition of wealth.

Much of the upper part of the state consists of land of second quality, but yet strong enough to produce excellent crops of small grain. Situations may be chosen, far beyond the reach of stagnation, and near the margin of some of the most pellucid streams of water in the world. Fortunes will not, indeed cannot, be accumulated in a few years, but health, the best of all the gifts of nature, will be always in reach. From the mildness and softness of the climate, human existence will be supported with less manual labour than in more

rigorous latitudes. It will be seen by the tables attending this work, how vast a mass of human beings can be placed upon the region in question. Persons intending to settle in Louisiana, ought, if possible, to remove in the fall, spend the winter in the country, and in some measure mature themselves to the climate before the fervid heats of summer.

Bilious complaints, almost uniformly, attack new comers. These complaints may mostly be prevented or removed without much danger or difficulty. At a distance from towns they are seldom fatal. The influence of cities, on the health of mankind, ought not to be overlooked by the emigrant.

Without swelling this subject to a tedious length, all that might be said on the climate of the state of Louisiana could not be included. It will be sufficient to remark, that persons who remove to the country, from flattering pictures of wealth, laid before them by interested or misinformed persons, have very often the pain of disappointment, to sharpen the pangs of a sick bed. Though many fortunes of large magnitude have been acquired on the lower parts of the Mississippi, they have not been procured without labour, temperance, and œconomy; habits and virtues that go seldom unrewarded in any place. He who ranges into Louisiana to indulge idleness, will mostly reap the reward of poverty, contempt, and unpitied disease. The man who fixes himself in the country, from rational ideas, and whose expectations are not inflated, will often find his situation agreeable and meliorated. The lands are mostly superior to much of the surface of other parts of the United States. The winters are shorter, and the ease of supporting animals very much abridge human labour.

A person of large capital, who settles either on that part of the state favourable to the cultivation of cotton or sugar, must, in the lapse of some years, find his property increased, while the danger to his health or that of his family, will be removed by the same means that add to his wealth; exercise, sobriety, and moderation.

It may with safety be concluded, that personal and domestic cleanliness, has an omnipotent effect on the health, and even the morals of mankind. Decency of person is seldom found in families, without repaying the pains taken to acquire it, a thousand fold. The plague, and other destructive eruptive disorders, are daily becoming less frequent and fatal. This great and beneficial change has, no doubt, in part originated from improved habits of living, in respect to diet and cleanliness. Countries, where these advantages are not enjoyed, are yet most subject to pestilential disorders. When men are taught to remove the external causes of putridity, it is difficult to estimate the result upon the happiness and security of mankind. No doubt the time will come, when a part of the national income will be spent to remove that zone of morbid exhalation, that surrounds so much of our common country—then will health lead civilization

“ Thro’ woods, and pathless wilds, and mountain snows.” OVID.

The prevailing wind of Louisiana is from the south, the current of air is from that point, or within a few degrees east or west, more than half the year. During a south wind, the sensations of the human body vary with the humidity or dryness of the air. Heat is always the attendant of a south wind, but the effects of the increased warmth is felt with more force if the air is humid. In the latter case, a weakness and debility

is the consequence ; but after a dearth, when the air is dry, a south wind produces elasticity and vigour in the human frame.

From the peculiar structure of the coast of North and South America, from Cape Sable to Cape Roque, 5° S. lat. and from the position of the West India islands, from Cape St. Anthony to Tobago, the winds prevailing in Lower Louisiana must be influenced, both in their course and the temperature they produce, by the impending shores, and by the seas and lands over which they sweep.

The trade winds passing continually over the Atlantic Ocean, on the coast of South America meet that continent, for the first time, at Cape St. Roque ; then bend in the direction of the mouth of the Mississippi, about N. 53° W. and pursue the curve of the Caribbean sea, near 5000 English miles. This line will have on the N. E. the West India islands, and on the S. W. that immense range of coast that includes the sea shores of the Brazils, Guiana, and Caraccas, with the vast bays of Cartagena, Venezuela, and Triste, in South America, and the coast of Darien, Veragua, Costa Rica, Nicaragua, Honduras, Yucatan, Tobago, Mexico, New Leon, Texas, and Louisiana, with the wide bays of Honduras, Campeachy, and St. Bernard, in North America. Mr. Edwards, in his history of the West Indies, in speaking of the climate of those islands, expresses himself thus :—

“ The vernal season or spring, may be said to commence with the month of May, when the foliage of the trees evidently becomes more vivid, and the parched savannahs begin to change their russet hue, even previous to the first periodical rains, which are now generally expected, and generally set in about the middle of the month. These, compared with the autumnal

rains, may be said to be gentle showers. They come from the south, and commonly fall every day about noon, and break up with thunder storms; creating a bright and beautiful verdure, and a rapid and luxuriant vegetation. The thermometer at this season varies considerably; commonly falling six or eight degrees immediately after the diurnal rains; its medium height may be stated at 75° .

“ After these rains have continued a fortnight, the weather becomes dry, settled, and salutary; and the tropical summer reigns in full glory. Not a cloud is to be perceived, and the sky blazes with irresistible fierceness. For some hours, commonly between seven and ten in the morning, before the setting in of the sea breeze or trade wind, (which at this season *blows from the south-east* with great force and regularity, till late in the evening,) the heat is scarcely supportable; but no sooner is the influence felt of this refreshing wind, than all nature revives, and the climate in the shade becomes not only very tolerable, but pleasant. The thermometer now varies but little in the whole twenty-four hours; its medium near the coast may be stated at about 30° . I have seldom observed it higher than 85° at noon, nor much below 75° at sunrise. The nights at this season are transcendantly beautiful. The clearness of the heavens, the serenity of the air, and the soft tranquillity in which nature reposes, contribute to harmonize the mind, and produce the most calm and delightful sensations. The moon too in these climates displays far greater radiance than in Europe; the smallest print is legible by her light; and in the moon’s absence, her functionaries are not ill supplied by the brightness of the milky way, and by that glorious planet Venus, which appears here like a little moon, and glit-

ters with so resplendent a beam, as to cast a shade from trees, buildings, and other objects, making full amends for the short stay, and abrupt departure of the crepusculum or twilight.

“ This state of the weather commonly continues with little variation from the beginning of June, until the middle of August, when the diurnal breeze begins to intermit, and the atmosphere becomes sultry, incommodeous and suffocating. In the latter end of this month, and most part of September, we look about in vain for coolness and comfort. The thermometer occasionally exceeds 90°, and instead of a steady wind from the sea, there are usually faint breezes and calms alternately. These are preludes to the second or autumnal season.

“ Large towering clouds, fleecy and of a reddish hue, are now seen in the morning, in the quarters of the south and south-east. The tops of the mountains appear at the same time clear of clouds, and the objects upon them wear a blueish cast, and seem much nearer to the spectator than usual. When these vast accumulations of vapour have arisen to a considerable height in the atmosphere, they commonly move horizontally towards the mountains, proclaiming their progress in deep and rolling thunder, which, reverberated from peak to peak, and answered by the distant rolling of the sea, heightens the majesty of the scene, and irresistibly lifts up the mind of the spectator to the great Author of all sublimity.

“ The waters however with which these congregated vapours load the atmosphere, seldom fall with great and general force, until the beginning of October. It is then that the heavens pour down cataracts. An European who has not visited these climates, can form no just conception of the quantity of water which de-

luges the earth at this season ; by an exact account which was kept of the perpendicular height of the water which fell in one year in Barbadoes, (and that no ways remarkable) it appeared to have been equal to sixty-seven inches.

“ It is now (in the interval between the beginning of August, and the latter end of October,) that hurricanes, those dreadful visitations of the Almighty, are apprehended. The prognostics of these elementary conflicts have been minutely described by various writers, and their effects are known by late mournful experience, to every inhabitant of every island within the tropics, but their immediate cause seems to lie far beyond the limits of our circumscribed knowledge.

“ Towards the end of November, or sometimes not until the middle of December, a considerable change in the temperature of the air is perceptible. The coasts to the northward are now beaten by a rough and heavy sea, roaring with incessant noise : the wind varies from the east to the north-east, and north ; sometimes driving before it across the highest mountains, not only heavy rains, but hail ; till at length the north wind having acquired sufficient force, the atmosphere is cleared, and now comes on a succession of serene and pleasant weather ; the north-east and northerly winds spreading coolness and delight throughout the whole of this burning region ”

From the foregoing description of the climate and seasons of the West Indies, any person long acquainted with the country, would be surprised at the similarity of the seasons in these islands and those of the northern shore of the gulph of Mexico, with the exception of a month in the general changes.

The seasons of the state of Louisiana, admit of the

Boreal division of Spring, Summer, Autumn, and Winter. The approach of Spring is announced in the month of March by an almost continual south wind, which gradually superinduces warmth and vegetation, often attended with very heavy rains, and sometimes by chilling north and north-west winds, which latter end in clear serene weather, succeeded by a return of south wind and rain. The month of April is generally ushered in by an increase of southern winds and heat; vegetation is extremely rapid, though sometimes frost has been known in this month, sufficiently severe to kill the cotton and other tender herbs. The peach-tree now beautifies the farms with its elegant purple blossoms, the forests gradually assume their full foliage, the birds enliven the woods with their notes, particularly the mockbird, which, courting the society of man, perches himself on some spray near the houses, continuing through the night his varied notes. The prairies are clothed in the garb of most verdant hue, while the forests are decked with the sanguine tint of the red bud, and the virgin white of the wild cornelian flower. The month of April in these regions is in reality the representative of the May of the higher northern countries; it is the season of gayety and renovation throughout all nature. Enough of the coolness of winter remains to give an agreeable freshness to the air.

Before the beginning of May, in common seasons, the force, frequency, and regularity of the south winds has ceased, and dry weather commences*. The heats

* This observation, though just on an aggregate of several years, admits of some remarkable exceptions. The great rain in the Spring of 1804, was on the 4th day of May. This pluvial deluge seemed in quantity and time beyond the limit of human calculation.

of summer now increase rapidly, vegetation is vigorous, though often checked for want of rain. The month of June differs but little from May, except in increase of heat.

It was a remark made by the late Mr. Dunbar, of Natchez, that the wind during the day in Louisiana, almost uniformly in the summer months, blows about 3° behind the sun, keeping that distance throughout the day. The wind commences with the rising of that luminary.

The nights are uniformly temperate. It is a fact, that the oven-like heat often experienced in high northern latitudes, in the summer evenings, is unknown in Louisiana.

With the month of July showers commence, often attended with very loud thunder. Sometimes the rains are excessive. The fig, which ripens in this month, is almost annually injured by wet weather. The heat of the sun, now in full force, is often extremely oppressive.

The mosquito, that animal of which so much has been said, now presents its millions in the swamps and woods, adjacent to the lakes or marshes. This troublesome little insect is so constantly found most numerous near wet places, and where the now retiring floods have left the earth in a damp state, that I have often been tempted to believe it a vigilant sentinel placed by nature at the portals of disease, to warn man to beware. The mosquito is certainly, of all the works of the creation, endowed with life and motion the most eternally active; its voracious appetite keeps it ever on the wing; every pond is its native bed; every leaf in the swamps its dwelling; and the blood of all animals, through whose skin it can pierce its fine attenuated

proboscis, its food.—The never ceasing hum of these creatures awakens in the mind of the person exposed to their bite the most disagreeable sensations:—they are the insect hydra; destroy them by hundreds, other hundreds succeed. Nothing but flight from their abodes, or a curtain that bars their attacks, will defend the traveller from their cruel ferocity. But, notwithstanding what is said of the mosquito, it is much less injurious than has generally been represented, and certainly produces beneficial consequences, by obliging men to avoid low, damp, marshy land in summer. Early in the morning, and in the evening, the mosquito is most active, times when the miasmata of those places is most dangerous. It might be, perhaps with propriety, considered, not a defective method to estimate the general health of any given place, by the quantity of these mosquitoes. Authors of credit have contended, that the abundance of noxious insects, such as locusts and mosquitoes, indicate a state of air injurious to the health of warm blooded animals, particularly man, and quadrupeds. That this idea is not unfounded in fact, there are many reasons to conclude. The present year, (1811,) is remarkable for the great numbers of the mosquito, and for the prevalence, with an unusual degree of violence, of bilious complaints, and the existence of the yellow fever in New Orleans. When the months of June and July produced uncommon quantities of these creatures, it would be prudent to prepare for approaching danger in the three ensuing months.

It is certainly one of Nature's hidden mysteries, why locusts, flies, mosquitoes, and other animals of the insect tribes, should so immeasurably differ in quantity in succeeding seasons. No reason has yet been adduced to account for this fact, a fact far too little at-

tended to by naturalists. Experience has too clearly established the union between uncommon production of those animals, and a state of air productive of sickness and death to man, to permit skepticism to doubt the truth. After all our deep researches into the works of nature, how many of her most important secrets are yet concealed from our knowledge! Too often has learning and industry been exhausted on trifles, whilst subjects upon which depend the welfare of millions have been neglected.

Reviewing the climate of Louisiana, a circumstance claiming most serious attention, is the facilities or impediments that nature affords or opposes to invading armies, likewise the probabilities of health or sickness to native or American troops stationed in the country. The received opinion, that northern armies will of course prevail, against those from more southern regions, is unsupported by the general tenor of history. The destruction of the Roman empire by the hordes of northern Europe, stands contrasted with the conquests made by the Egyptians and Saracens from the south. It ought to be recollect, that the Roman empire rose in a comparative soft and voluptuous climate, to that of many of its vast provinces in Europe and Asia; and that its decadence arose from other causes, and had but little dependence upon the position of its capital. In addition to the debilitating influence of heat upon human morals, it is currently believed to produce a want of energy approaching to cowardice. "Notwithstanding such was the corruption of Rome," says Montesquieu, "all misfortunes were not introduced, because, such was the force of her institutions, that she has preserved an heroic valour, and all her application to the art of war, amidst wealth, effeminacy, and volup-

tuousness; more than I believe ever has been the case with any other nation of the world*." The example of Rome may be cited in this place with the more propriety, from its resemblance respecting atmospheric temperature to Louisiana. How far the climate of the former place has changed in the last nineteen hundred years, is a disputed subject; but arguing from its local position, the deduction is rational, that except the influence of human labour in first draining the Pontine marshes, and of human neglect in suffering those fens again to stagnate, no great change has been effected. It may then be fairly concluded, that if the health of men can be preserved, and the love of country and military pride fostered by civil liberty, no great apprehension need be entertained of the deterioration of the energies of mind or action in Louisiana. No axiom admits of more demonstrative solution than that every thing else equal, an army composed of the natives of any place, or of men seasoned to the climate, has numerous advantages over an invading force. This fact was on many occasions proved in the American revolutionary war, by the United States' militia, fatiguing, harassing, and destroying the British regular armies. The great veteran army of nearly 40,000 men, sent by France to St. Domingo, against the most miserable race that ever pretended to self-government, evinced how efficient an ally climate is on the side of native troops. The elements will always range themselves on the part of men they have fostered.

A history of the expeditions made to this continent during the last 90 years, by the nations of Europe, affords a melancholy picture of human crimes and folly;

* *Grandeur et décadence des Romains*, chap. x. page 103.

at once outraging humanity and prudence. Hosier's expedition to Porto Bello, in 1726; Vernon and Wentworth, to Cartagena, in 1741; the French expedition to St. Domingo in 1801; and the great British army that invaded Louisiana in 1814, have exhibited merely the most prominent scenes in this lengthened tragedy. It is thus that ignorance and ambition sport with life and happiness. Every evil is however productive of benefit to man; the pale spectre of disease that appals the invader, assists the native to defend his rights, his home, his wife, and his children. What could never be effected by the admonitions of pity, the demands of justice, or the maxims of policy, is effected by the atmosphere. Man, that in the intoxication of success, or the allurements of ambition, is deaf to every cry but that of contending hosts, is reclaimed or restrained by the immutable laws of the universe. His unprincipled schemes of conquest, robbery, and murder, are repressed and revenged by an arm, opposed to whom all human strength is weakness.

In an inquiry into the influence of the climate of Louisiana upon the health of the inhabitants, to complete the investigation; it will be necessary to establish its effects also upon the mental faculties of persons born within the sphere of its influence. This section we enter upon with a feeling of pleasure. The people of the United States will receive with equal satisfaction, a detail, that when admitted as correct, must lessen the prejudices that accident and design have engendered to widen the moral distance between them and their fellow citizens in Louisiana. To an ingenuous mind, nothing administers more solid gratification, than to find man more amiable than expected. The noble enjoyment arising from the exchange of sentiment between en-

lightened minds, is one of the greatest privileges that reason has accorded to man. To open new sources of this sublime fruition, is conferring a benefit on human nature.*

* European animals, in general, degenerate in the West Indies; and as they descend in a few generations, retain but little resemblance of the original stock. How far this extends to the human race, as relative to natural endowments, is a subject of nice inquiry, and foreign to my present pursuit. However, if any inferiority be found at all, it does not appear in the first generation, or in those born immediately of European parents. But on the contrary, if my observation be just, in people of this description, there is equal capacity and stability of mind, with more acumen than in those born in Europe. Whether this diminishes or not, in further removes without European mixture, abstracted from the influence of habit and education, may admit of speculation. But let the change be how, or what it may, I have never observed any declension in the qualities of the heart, nor in the tendency of the mind, that philosophy could fairly attribute to nature. The women are generous, affectionate, industrious, and virtuous. The men are brave, polite, and ingenious; and have a peculiar turn for the acquirement of belles lettres, and the elements of arts that are not laborious. Powerful as the dominion of passion and impatience is, indolence must prevail where perpetual sameness of the season blunts the edge of energy, and where climate relaxes the muscular fibres, and debilitates the nerves. European dogs lose their scent, horses their speed, and human beings, of delicate structure and fine feelings, sink into a wearisome existence, deprived of power and inclination to move. But there are different casts of human beings, as well as other animals. Men, generated from the coarser materials of northern melancholic matter, who on their native soil were intended to vegetate, labour, and die, often acquire an expansion of soul, when removed to warmer climates. They ripen in the sun. They get ideas in spite of nature. It is not uncommon between the tropics to see contention for precedence; duel from punctilio, and the laws of honour obstinately insisted upon by men, who, but a few years before, were imported from Europe to fulfil some servile office, in which they acted with ignorance and integrity, until the sun had sublimed their stupidity and dissolved their principles.

Dr. Moseley, on the climate of the West Indies, page 103.

The character of the Creole of Louisiana may be drawn in few words. Endowed with quick perception,

Mr. Edwards, speaking of the Creoles of the West Indies, has drawn a picture, that every attentive observer must acknowledge a striking likeness of the Creoles of Louisiana. With the difference of climate, and political governments under which the respective parties were brought to maturity, we are confident there is much similarity between the West Indians and Creoles of Louisiana.

“ Perhaps the circumstance,” says Mr. Edwards, “ most distinguishable in the character of the natives to which the climate seems to contribute, is the early display of the mental powers in young children; whose quick perception, and rapid advances in knowledge, exceed those of European infants of the same age, in a degree that is perfectly unaccountable and astonishing. This circumstance is indeed too striking to have escaped the notice of any one writer who has visited the tropical regions of America; and the fact being too well established to be denied, the philosophers of Europe have consoled themselves with an idea, that, as the young West Indians attain sooner to maturity, they decline more rapidly than Europeans. Nature is supposed to act in this case in a manner analogous to her operations in the vegetable kingdom, where the trees that come soonest to perfection, are at the same time less firm and durable than those which require more time for the completion of their growth. It is indeed certain, that the acquirements of the mind in the natives, do not always keep pace with its early progress; but the chief cause, (as Uloa hath observed,) of the short duration of such promising beginnings, seems to be the want of proper objects to exercise the faculties. The propensity also, which the climate undoubtedly encourages, to early and habitual licentiousness, induces a turn of mind and disposition unfriendly to mental improvement. Among such of the natives as have happily escaped the contagion and enervating effects of youthful excesses, men are found of capacities as strong and permanent as among any people whatever; as I cannot, therefore, admit that the Creoles in general possess less capacity and habits of mind than the nations of Europe, much less can I allow that they fall short of them in those qualities of the heart that render man a blessing to all around him. Generosity to each other, and a high

his faculties develope themselves at an early age ; if found ignorant, it is not the ignorance of stupidity, but arising from an education under circumstances unfavourable to improvement. Open, liberal, and humane, where he is found inhospitable, it is the fruit of a deception he dreads, and to which his unsuspecting nature has led him to be too often the victim. Mild in his deportment to others, he shrinks from contention ; a stranger to harshness, his conduct in the pursuits of life is marked by kindness. Legal disputes, that seem to form part of the amusements of the people of some other parts of the world, are instinctively avoided by the Creole. His docility and honesty secure him from injuring others, and he enters the temple of justice with reluctance to demand reparation for his own wrongs. Sober and temperate in his pleasures, he is seldom the victim of acute or chronic disease. His complexion, pale but not cadaverous, bespeaks health, if not a vigorous frame. His strongly speaking eye, beams the native lustre of a mind, that only demands opportunity and object to develope all that is noble and useful to mankind. If the Creole of Louisiana feels but little of a military spirit, this apathy proceeds not from timidity ; his ardent mind, light athletic frame of body, active,

degree of compassion and kindness towards their inferiors and dependents, distinguish the Creole in a very honourable manner. If they are proud, their pride is allied to no meanness. Instructed from their infancy to entertain a very high opinion of their own consequence, they are cautious of doing any act which may lessen the consciousness of their proper dignity. From the same cause they scorn every species of concealment. They have a frankness of disposition beyond any people on earth. Their confidence is unlimited and entire. Superior to falsehood themselves, they suspect it not in others."

indefatigable, and docile, would render him well qualified to perform military duty, should this part of his character ever be called into action*. The peal of national glory was never rung in his youthful ear. One generation has arisen since Spain held this country, and noble was the germ that retained its fructifying power, under the blighting influence of that government.† Louisiana has escaped the galling and torpid yoke ; its inhabitants will share the genius and freedom of the empire in which they are incorporated.

The cordiality with which the Louisianians hailed their introduction into the U. States government, has received a check from the misconduct of too many Americans. The moment the change was effected, an host of needy adventurers, allured by the softness of the climate, the hopes of gain, and inflated by extravagant expectations, spread themselves along the Mississippi. Many men of candid minds, classical education, and useful professional endowments, have removed and settled in Louisiana ; but some without education or moral principle, prejudiced against the people as a nation whom they came to abuse and reside amongst. Too ignorant to acquire the language of the country, or to appreciate the qualities of the people, this class of men have engendered most of the hatred existing between the two nations that inhabit Louisiana. The evil of national animosity will gradually subside, as a

* This part of the work was composed at Opelousas, and read to several persons, in the month of October, 1811. How far the author estimated correctly the character of the Creoles, and the consequences of invading Louisiana, intermediate events have amply explained.

† It is happy for them that God should have permitted the existence of Turks or Spaniards, the two nations best calculated to possess uselessly a great Empire.—*Grandeur and Decline of the Romans, chap. xxii. p. 275.* MONTESQUIEU.

more numerous and orderly race of people become the improvers of the public lands.

The dark side of the Creole character may be considered impatience of temper, and a propensity to licentiousness when in the possession of wealth.

Mr. Bryan Edwards, in drawing the character of the West Indians, imputes their early propensity to licentiousness to the climate. We may wonder why so accurate an observer should impute the evil to climate, when the cause was so obvious. The real fact is, that the slavery of the negroes constitutes the demoralizing principle, if it exists, that debauches the mind and body.

Copying from Montesquieu and not from observation of nature, climate has been called upon to account for stains on the human character, imprinted by the hand of political mistake. No country where negro slavery is established, but must bear in part the wounds inflicted on nature and justice. Where the first lesson taught men is their own consequence, and the degraded state of beings born to administer to their passions, is every moment present to their eyes, men may be proudly jealous of their own freedom; may maintain it with vigour; but, in despite of the most virtuous precepts, seducing examples must weaken the moral principle in the hearts of too many. "The slavery of some part of the human species," says Mr. Edwards, "in a very abject degree, has existed in all ages of the world, among the most civilized as well as the most barbarous nations." And that, "perhaps like pain, poverty, sickness and sorrow, and all the various other calamities of our condition, it may have been originally interwoven into the constitution of the world, for purposes inscrutable to man."*

Without pursuing a train of metaphysical reasoning on the subject, we may at once draw this induction ; that if slavery, like pain, is one of the laws of existence, the latter does not more certainly produce physical weakness, debility, and death, than does the former lessen the purity of virtue in the human breast.

The author last quoted, in another part of his works, has most justly accounted for the licentiousness of not only the people of the West India islands, but of all others, similarly situated. This subject is too painful and delicate to enlarge on : I would not have touched the theme, if it had not been to obviate a too general idea ; that the moral sense in the human breast, becomes lower on advancing southward, and that a scale of virtue might be formed on the reverse principles of a thermometer.

I have reserved, to close the subject, the examination of that part of the human species, whose moral character has, in every civilized region of the earth, and in all ages, most deeply influenced that of man. It needs no other criterion to judge of the rank that nations may be entitled to occupy in the scale of civilization, than the state of their women.

The women of Louisiana are, with few exceptions, well formed, with a dark piercing eye. Their movements bespeak warmth of imagination, and a high flow of animal spirits, whilst their features indicate good nature and intelligence. Tender, affectionate, and chaste, but few instances of connubial infidelity arise from the softer sex. With too often example to excuse, and neglect to stimulate, the most sacred of human contracts is fulfilled on their parts with a fidelity that does honour to their sex. In all parts of the earth, and in all ranks of society, women are more virtuous than

men. From some cause that operates every where, the moral sense is more deeply felt, and more uniformly obeyed by women than by men: more temperate in their enjoyments, their passions are more under the guidance of reason; decent in their deportment, they continually counteract the predisposition in man to vulgar sensuality.

As wives, sisters, or mothers, the Creole women hold a rank far above their apparent means of education. Frugal in the expenses of life, they seldom lead their families into distress, by gratifying their pleasures or pride. Rigid economy, that may be called a trait in the Creole character, is more prominent in the conduct of women than in that of men. Very seldom the victims of inordinate desires in any respect, their dress is regulated by neatness, decency, and frugality.

That this picture is neither the effect of a warm imagination that delights in clothing objects in false colours, or that of flattery, will be admitted by generous, candid and observing men of all nations, who have had the honour to possess the only means of forming a judgment—converse and acquaintance with the objects of the inquiry. If the women of Louisiana are found deficient in mental endowment, the reason is obvious: want of the means of acquirement. But the minds of the Creole women, remarkably active and tenacious, are much less ignorant than is generally supposed. Should a general taste for reading be infused into society, if a judgment can be formed by the strength of mind, intuitive perception, and clear discrimination evinced by the fair of Louisiana, their rank in the scale of intelligence will be respectable, if not exalted.

At this moment, politeness, ease, hospitality to strangers, tenderness to their relatives, and indulgence to

their slaves, attended by a mild unobtrusive decency of deportment, mark the conduct of the Creole women. Exceptions may be found, but the general outline is just.

If climate operates extensively upon the actions of human beings, it is principally their amusements that are regulated by the proximity to the tropics. Dancing might be called the principal amusement of both sexes in Louisiana. Beholding the airy sweep of a Creole dance, the length of time that an assembly will persevere in the sport, at any season of the year, cold or warm, indolence would be the last charge that candour would lodge against the people. All ages on the approach of a ball, seem to feel the warmth of youth; the bloom of fifteen, and the apparent decrepitude of sixty, alike evince animation.

Few subjects have been more canvassed than the effects of local climate. The malignant fevers of America; their nature, origin, cure, and the certainty or uncertainty of their recurrence, have exercised the pens of some of the first medical men of the age.

The various papers collected and incorporated into the Medical Repository, and Medical Register, published in New-York, would form an interesting and extensive volume. The climate and diseases of our continent, and those of the West-Indies, have been canvassed by Dr. David Hosack, Dr. S. L. Mitchel, Dr. Chisholm, Dr. Williamson, and many others eminent for learning and experience.

It is melancholy, however, to find that learning and the severest philosophical inquiries have not yet produced any certainty as to the effect of climate in producing or perpetuating destructive fevers. One contends with great earnestness for the contagious nature

of the yellow fever particularly, whilst another considers this disorder a mere modification of bilious complaint, with a type aggravated by a morbid atmosphere; and as usual both parties appeal to the same facts as evidence to prove the correctness of opposite conclusions. A perusal of these two works, the Repository and Register, will afford a very extended knowledge of our climate, a knowledge in which all men are concerned; and a knowledge, the want of which has cost many a valuable life; for whatever may be the difference in speculative opinion between the members of the faculty, on the origin of, or regimen in the cure of malignant fevers, they agree that the most certain preventive is temperance, cleanliness, and wholesome air and food. In pointing out to those who reside in, or who intend removing to, the mouth of the Mississippi, or any other place where men are considered as exposed to deadly fevers, there would be very little difference, I presume, in the precautions that would be recommended by any two experienced physicians in the United States.

The matter composing Chap. VII. of this edition of my work, was wrote at Opelousas, between 1811, and 1813. No part of my tracts has been so much criticised as my observations on the climate and diseases of Louisiana. I expected to have much to encounter, when advocating the salubrity of this interesting country; but I did not, nor could not, without doing violence to my own experience, anticipate the wide spread and deep rooted prejudices I have found planted in the bosom of most of my countrymen against the climate of the Delta of the Mississippi.

In the months of July, August, and September of 1799, I descended the Ohio and Mississippi to Natchez.

That year the yellow fever prevailed in New-Orleans; to the severity of which, fell victims, Manuel Gayosa de Lemos, the then governor of Louisiana, and many other persons, Creoles, and strangers. I arrived at Natchez on the 13th of September, in that country the most deleterious month. I resided in the neighbourhood of Natchez until July, 1805, at which epoch I left that city, and commenced the collection of materials for my map and tracts on Louisiana; and during almost ten years, endured all that the summer's sun, and winter's wind could inflict. Between the 9th of July, 1805, and the 7th of May, 1815, incredible as it may appear to many persons, I actually travelled upwards of twenty thousand miles, mostly on foot. The range of my peregrinations embraced all the country between the Mobile Bay and Sabine river; and from the Gulf of Mexico to the thirty-third degree of north latitude. During the whole of this period I was not confined one month, put all my indispositions together; and not one moment, by any malady attributable to the climate. I have slept in the open air in some of the hottest summer nights for weeks together, and endured this mode of life in the most matted woods perhaps in the world. During my survey of the Sabine river, myself and the men that attended me, existed for several weeks on flesh and fish, without bread or salt, and what many of my readers will consider more wonderful, without sickness of any kind.

That nine tenths of the distempers of warm latitudes could be guarded against, I do not harbour a single doubt. Temperance, fresh air, good sound food in plenty, and above all cleanliness of house and person, would contribute more to secure cities, or countries,

from pestilence, than all the quarantine regulations that were ever framed since their first introduction.

Whatever may be their discordancy on other subjects, there is one upon which medical men agree—the efficacy of preserving cities, and even farm houses, free from filth. The opponents of importation, or indigenous origin of malignant fevers, concede to each other, that, from whatever source the virus descended, the most favorable laboratory in which it can operate, is a morbid atmosphere, poisoned by fetid miasmata.

An immense population must in a few years be concentrated on and near the mouths of the Mississippi and Mobile rivers, and as every facility is given by new forms of government to the adoption of a prudential system of police; evils may be prevented that have formerly carried their ravages over whole cities.

Between the localities on the Mississippi and Mobile rivers, there exists a very strong contrast. From the shortness of its course, the latter is scarcely subject to any of the evils attending an inundated country, when compared to the former. The floods of the Mobile are sudden and soon subside; they occur at most seasons of the year, but most abundant in spring. Before the violent heats of summer, the waters of the Tombigbee and Alabama are abated, and their swamps are in a great measure drained.

From the immensity of its length, the Mississippi floods have not gained their full elevation before May or June; of course the swamps are draining when the heats of summer are the most intense. If any injurious consequences do arise from swamps in a state of recent immersion, those consequences must be greater near the estuary of the Mississippi than that of the Mobile river.

Precautionary works erected to obviate the overflowing of its banks can be made to much greater advantage upon the Mississippi, than on the Mobile. I have shown that most if not all the surplus waters of the former river, could be with no extraordinary expense thrown into lakes Pontchartrain and Borgne.

It will be seen by the report of M. de Prony,* that my opinion is well supported in the most efficacious, and indeed the only means to prevent the inundation of the banks of the Mississippi. When treating this subject in Chap. III. of this work, the consequences to agriculture were only taken in view. I feel no hesitation in declaring my firm belief, that if the overflow of the lands adjacent to the Mississippi could be prevented; if the country was rendered dry; and if corrupting vegetables were not annually left to ferment by heat and moisture, that no part of the world would be more salubrious. And I also am persuaded that if the obvious and easy means I have pointed out were adopted, that the result would be as advantageous to the health as to the purses of the inhabitants.

The importance of present measures to unborn millions of human beings, ought to be constantly before the eyes of those men who have the administration of Louisiana now in their hands. I am aware that most men view future generations, like distant nations, with whom they have no intercourse. It ought to be remembered, however, that in proportion as the present generation wisely provides for the happiness of its posterity, so will the reactive respect be from the latter to the former. A stimulus to fame arises also in this instance from prospect of present advantage.

There are few inhabitants of Louisiana, but who an-

* See page 59, note.

ticipate the rising greatness of their country, and there perhaps are fewer who consider the most suitable means to secure that national greatness. Lewis XIV. has gained more solid glory by the canal of Languedoc, than by all the military operations of his long and eventful reign. Robert Fulton has secured to himself immortality, by perfecting and introducing to use the expansive power of steam. Jenner has gained a name imperishable as literature, for disarming the virus of small pox.

The man who, uniting energy of mind to political authority, effects a reservoir for the superabundant waters of the Mississippi; who provides means to remedy the mischiefs now emanating from annual inundation; and who at once widens the surface of arable land, and lessens the diseases of those who are to exist upon its surface—such a man would be entitled to receive the respect of his cotemporaries, and the gratitude of every succeeding generation.

There is nothing delusive or imaginary in this prospect. There is no obstacle of serious import to encounter. Every thing is practicable to accomplish, with the present resources of the people, and the benefits resulting certain.

A glance of the eye upon a map of the valley of the Mississippi and tributary streams, will suffice to give conviction of the importance of New-Orleans; but it demands deep reflection to foresee what is necessary to preserve the lives of the thousands and tens of thousands who will daily visit this mighty and increasing mart. Immersed in their own present concerns, most men never bestow a thought upon any subject upon which they are not directly concerned. This has ever been, and perhaps ever will be, the common routine of human

affairs. There are noble exceptions to this selfish and exclusive principle;—it may be hoped that Louisiana will add one more. It cannot be considered a useless or an unprofitable appeal to the wisdom of the administrators of our national or state Legislatures, to call their attention towards a city, which in the common course of events must have a deep interest in the future progress of happiness, wealth, and power in the United States; to a city, whose name has become dear to the American people; as a scene where the nation has gained immortal renown;—and to a city, upon the prosperity of which depends that of an immense number of the inhabitants of our union.

The general government is now engaged in providing security against attacks of invaders. It ought not to be forgotten, that there are enemies who have carried death and ruin into cities, and against whose attacks cannons or forts would be no defence. It is against this insidious foe, whose approach is slow and silent, whose deadly weapons are aimed at youth and beauty, as well as age and decrepitude, that national precautions ought to be most carefully taken.

STATISTICS

OF THE

STATE OF MISSISSIPPI.

CHAP. VIII.

LIMITS, EXTENT, POLITICAL DIVISIONS, GEOGRAPHICAL FEATURES.

THE State of Mississippi was designated by the following Act of Congress.

An Act to enable the people of the Western part of the Mississippi territory to form a Constitutional and State government, and for the admission of such State into the union on an equal footing with the original states.

BE IT ENACTED by the Senate and House of Representatives of the United States of America, in Congress assembled, That the inhabitants of the western part of the Mississippi territory be, and they hereby are authorized to form for themselves a Constitutional and State Government, and to assume such name as they shall deem proper; and the said state, when formed, shall be admitted into the Union upon the same footing with the original states, in all respects whatever.

Sec. 2. And be it further enacted, that the said state shall consist of all the territory included within the following boundaries, to wit:—Beginning on the Mississippi river at the point where the southern boundary line of the State of Tennessee strikes the same, thence east along the said boundary line to the Tennessee river, thence up the same to the mouth of Bear Creek, thence by a direct line to the northwest corner

of the county of Washington, thence due south to the Gulf of Mexico, thence westwardly, including all islands within six leagues of the shore, to the most eastern junction of Pearl river with Lake Borgne, thence up said river to the thirty-first degree of north latitude, thence west along the said degree of latitude to the Mississippi river, thence up the same to the beginning.

Sec. 3. And be it further enacted, That all free white male citizens of the United States, who shall have arrived at the age of twenty-one years, and resided in the said territory at least one year previous to the time of holding the election, and shall have paid a county or territorial tax, and all persons having in other respects the legal qualifications to vote for representatives in the general assembly of the said territory, be, and they are hereby authorized to choose representatives to form a Convention, who shall be apportioned among the respective counties in the said territory as follows, to wit:—From the county of Warren, two representatives; from the county of Claiborne, four representatives; from the county of Jefferson, four representatives; from the county of Adams, eight representatives; from the county of Franklin, two representatives; from the county of Wilkinson, six representatives; from the county of Amite, six representatives; from the county of Pike, four representatives; from the county of Lawrence, two representatives; from the county of Marion, two representatives; from the county of Hancock, two representatives; from the county of Wayne, two representatives; from the county of Greene, two representatives; from the county of Jackson, two representatives: and the election of the representatives aforesaid, shall be holden on the first Monday and Tuesday in June next, throughout the several counties above mentioned, and shall be conducted in the same manner as is prescribed by the laws of said territory, regulating elections therein for members of the House of Representatives.

Sec. 4. And be it further enacted, That the members of the Convention, thus duly elected, be, and they hereby are authorized to meet at the town of Washington, on the first

Monday in July next; which Convention, when met, shall first determine by a majority of the whole number elected, whether it be or be not expedient, at that time, to form a Constitution and State Government for the people within the said territory: and if it be determined to be expedient, the Convention shall be, and hereby are authorized to form a Constitution and State Government:—Provided, That the same, when formed, shall be Republican, and not repugnant to the principles of the ordinance of the 13th of July, 1787, between the people and states of the territory northwest of the river Ohio, so far as the same has been extended to the said territory by the articles of agreement between the United States and the State of Georgia, or of the Constitution of the United States;—and provided also, That the said Convention shall provide, by an ordinance irrevocable without the consent of the United States, that the people inhabiting the said territory, do agree and declare that they for ever disclaim all right or title to the waste and unappropriated lands lying within the said territory, and that the same shall be and remain at the sole and entire disposition of the United States; and moreover, that each and every tract of land sold by Congress, shall be and remain exempt from any tax laid by the order or under the authority of the state, whether for state, county, township, parish, or other purpose whatever, for the term of five years from and after the respective days of the sales thereof, and that the lands belonging to citizens of the United States, residing without the said state, shall never be taxed higher than the lands belonging to persons residing therein; and that no taxes shall be imposed on lands the property of the United States, and that the river Mississippi, and the navigable rivers and waters leading into the same, or into the Gulf of Mexico, shall be common high ways, and for ever free, as well to the inhabitants of the said state as to other citizens of the United States, without any tax, duty, impost or toll therefor, imposed by the said state.

Sec. 5. And be it further enacted, That five per cent. of the nett proceeds of the lands lying within the said territory, and which shall be sold by Congress from and after the first day

of December next, after deducting all expenses incident to the same, shall be reserved for making public roads and canals; of which, three fifths shall be applied to those objects within the said state, under the direction of the Legislature thereof, and two fifths to the making of a road or roads leading to the said state, under the direction of Congress: Provided, That the application of such proceeds shall not be made, until after payment is completed of the one million two hundred and fifty thousand dollars, due to the state of Georgia in consideration of the cession to the United States, nor until the payment of the stock which has been or shall be created by the act, entitled "An Act providing for the indemnification of certain claimants of public lands in the Mississippi territory," shall be completed: And provided also, That the said five per cent. shall not be calculated on any part of such proceeds as shall be applied to the payment of the one million two hundred and fifty thousand dollars, due to the State of Georgia, in consideration of the cession to the United States, or in payment of the stock which may or shall be created by the act, entitled "An Act providing for the indemnification of certain claimants of public lands in the Mississippi territory."

Sec. 6. And be it further enacted, That until the next general census shall be taken, the said state shall be entitled to one representative in the House of Representatives of the United States.

H. CLAY,

Speaker of the House of Representatives.

JOHN GAILLARD,

President of the Senate pro tempore.

March 1, 1817—Approved,

JAMES MADISON.

The State of Mississippi is divided politically into two portions. The part included in the counties named in the foregoing Act of Congress, forms the least, but much the most valuable part of the state. The second

and most extensive division, remains yet in the possession of the Choctaw and Chickesaw Indians.

The following table will exhibit the relative extent of the counties, and their population in 1810. This will no doubt give a very inadequate conception of the number of inhabitants, now existing in the different counties, or their aggregate amount. A very considerable influx of emigrants is annually removing into the country now included in this state.

Statistical Table of the State of Mississippi.

Counties.	Square Miles.	Population in 1810.	Towns.
Warren,	414	1114	Warren.
Claiborne,	396	3102	Gibsonsport.
Jefferson,	540	4001	Greenville.
Adams,	414	10,002	NATCHEZ.
Franklin,	378	2016	Liberty.
Wilkinson,	612	5068	Woodville.
Amite,	972	4750	Liberty.
*Pike,	720		Jacksonville.
*Lawrence,	1000		Monticello.
*Marion,	828		
*Hancock,	2100		
Wayne,	1800	1253	Winchester.
*Greene,	1856		
*Jackson,	1050		
	13,080	31,306	

The population of the region included in this list of counties must have greatly augmented in the last seven years. That part of the state taken from the former West Florida, and now comprised in the counties of Hancock and Jackson, was not then a part of the Mississippi territory, consequently not embraced by the census of 1810. There were no doubt, however, at

* Counties made since 1810.

that period 5000 people in that part of West Florida; making the entire inhabitants 36,306.

The principal streams of the State of Mississippi, are, the Mississippi, Pearl, Pasagoula, Yazoo, Big-Black, and Homochitto rivers.

So much has been detailed in the Statistics of Louisiana concerning the Mississippi river, that leaves but little to repeat respecting it in this place. It forms the west limit of the state, from the thirty-first to the thirty-fifth degree of north latitude; or by a direct line of about two hundred and eighty, and following the stream upwards of four hundred miles. Of this distance two hundred is in front of the counties of Warren, Claiborne, Jefferson, Adams, and Wilkinson. That margin of the Mississippi that is contained in the new state, partakes of the general character of the lands of that river; but is less favourably situated for settlement than the right or west border. The hills approach towards the river, and confining the water, render the east side more liable to be inundated than the west. The hills reach the river, in many places forming bluffs; as at Walnut hills, Grand and Petite Gulph, Natchez, White Cliffs, and Loftus Heights. The high lands pursue nearly a direct course, whilst the river is extremely serpentine. Between the hills and the curves of the river, is included all the lands in the state that can be correctly considered recent alluvion. Many excellent settlements are formed along the river; the soil producing in abundance. The width of soil that can be reclaimed from inundation varies so much that no medium can be formed. The general timber found near the Mississippi, is composed of *Populus angulata* (cotton wood,) *salix nigra* (black willow,) *acer negundo* (box elder,) *celtis crassifolia* (hack-

berry,) *juglans amara* (bitter nut hickory,) liquid amber *styraciflua* (sweet gum,) *platanus occidentalis* (sycamore,) *fraxinus aquatica* (water ash,) and *ulmus aquatica* (water elm.) At a distance from the banks, cypress swamps are almost every where found, and frequently reach the margin of the river. The cypress swamps generally occupy the low lands, between the base of the hills and the high banks of the river. The cypress seldom comes in contact with the stream where the shores are convex. Many islands intersperse the Mississippi, between the mouth of the Yazoo and the 31° N. lat. but are mostly too low to admit cultivation. The soil of these islands is indeed extremely fertile, but no means existing to defend their surface from immersion in the spring and summer floods, the lands upon them cannot be of any considerable value, except for timber.

The Yazoo river rises in the Chickesaw country, nearly as far north as the south boundary of Tennessee. Interlocking with the head streams of the Tombigbee, the Yazoo pursues a course of a little west by south, falls into the Mississippi twelve miles above the Walnut hills; forming the north boundary of the county of Warren for about twelve or fifteen miles above its mouth. The Yazoo constitutes here also the present demarkation, between the Indian country and that part of the state to which the Indian title is extinct.

Some excellent land lies upon the margin of the Yazoo river, but the banks are mostly subject to overflow, and in the interior of the country distant from the river the soil is thin, and timbered chiefly with pine.

The Yazoo is navigable for a considerable distance from its mouth; but the greatest part of its course being

within the Indian country, but little is known with accuracy respecting its general features.

The Big Black enters the Mississippi above the Grand Gulph, forming from the Indian line to its mouth, the boundary between Warren and Claiborne counties. This river has its source between the head waters of the Yazoo and Pearl rivers; its general course being nearly S. W. about one hundred and seventy miles in length. Like all other streams which drain the high table land between the Mississippi and Tombigbee rivers, the land upon the head waters of the Big Black is sterile pine woods. The banks of the river, ameliorate and approximate in soil to those of the Mississippi, as the two streams approach their junction. Following the windings of the river, about thirty miles of the Big Black is within the settlements, and affords much excellent soil. The country adjacent to this stream, however, for many miles above its mouth, assumes the common qualities and varieties of that upon the Mississippi.

Between the mouths of the Big Black and Homochitto rivers, bayou Pierre, Coles creek, Fairchild's creek, and St. Catherine creek, enter the Mississippi from the left or east bank of that river. Two thirds of Claiborne, and one third of Jefferson counties, are watered by the bayou Pierre. Coles creek, and Fairchild's both enter the Mississippi, in Jefferson county. St. Catherine creek rises near Selzertown, on the northern border of Adams county, within which is its entire waters; this creek falls into the Mississippi, at the higher extremity of the white cliffs.

Homochitto river rises in the Indian country, near the N. E. part of Amite county. Many of its tributary creeks flow out of Jefferson county, and crossing

Franklin county, enter the principal stream in nearly an eastern direction from Natchez. The general course of the Homochitto river, is S. W. about seventy miles in comparative length; and before entering the Mississippi, flows into a lake, which once formed part of the latter stream.

Some of the most wealthy settlements in the state of Mississippi are upon the Homochitto and its tributary creeks. This river forms the limit between the counties of Amite and Franklin, and between Adams and Wilkinson. For about fifteen miles from the mouth, the banks of the Homochitto are annually overflowed, and unfit for settlement. Four or five miles below the mouth of second creek, the arable high land commences, and continues with partial interruptions to the source of the river. All the varieties of soil in the state of Mississippi, may be seen on this stream; and almost every species of forest tree growing in Louisiana, may be found in its woods.

The river Buffaloe rises in Amite county, flows through Wilkinson county in nearly a western direction, and falls into the Mississippi river, two miles above Fort Adams at Loftus heights. The soil, general aspect of the country, and natural productions, differ little on the lands watered by Buffaloe, from those of Homochitto.

Below the mouth of Buffaloe, the streams assume a south course. A dividing ridge, of which Loftus heights is the south-western prolongation, extends itself from the elevation from which flows the Yazoo and Pearl rivers, and continuing in a south-western direction, divides the waters of the Bogue Chitto and Amite from those of the Homochitto and Buffaloe rivers, and finally terminates abruptly at Loftus heights.

This ridge is, in all its length, the separating line between the rivers and creeks that lose themselves in the Mississippi; and those of West Florida. It is also a limit of climate; a sensible change of temperature is perceptible on passing this distinguishing, though not very elevated chain of hills. Snow is more frequent in Adams, than in Amite county; notwithstanding their proximity, and their occupying nearly the same latitude.

At Loftus heights is seen the last stone or rock resting in strata, that has been yet discovered in descending the Mississippi river. The rock is a Breccia, or Pudding stone of evident recent formation; and only visible when the river is extremely low. The same species of fossil forms the base of all the bluffs from the mouth of Ohio to Loftus heights. The pebble is of various colours, but white silex prevails. The cement is argillaceous, very much impregnated with iron ore. The most limpid water gushes over this mass of Breccia, but is considered unwholesome by the inhabitants, who live in the vicinity. The most curious and singular petrifications are admixed with the rock; having a perfect resemblance to those found in the state of Louisiana, in the neighbourhood of lake Bistineau.* Near the Bistineau, these petrifications form a superstratum upon horizontal sandstone, or the secondary floetz of Werner; there is no reasonable doubt, but that the Breccia of the state of Mississippi reposes also upon a similar base.

After leaving the banks of the Mississippi, and proceeding eastward along the 31° N. lat. the first river of note that occurs is the Amite.

Amite river, rises in the N. E. extremity of the coun-

* See page 173.

ty of that name ; and by two nearly equal streams traverses the county in a southern course, enters the State of Louisiana, and unites about two miles south of the line of demarkation between the two states*.

The lands upon the Amite are of three very distinct qualities ; alluvion near the streams, that species of slopes called Hammock, and the open pine hills.

Like alluvion, wherever it occurs, it is here extremely fertile ; timbered with liquid amber *styraciaflua*, (sweet gum,) *quercus tinctoria* (black oak,) *tilia pubescens* (linden, or lime tree;) and many other species of wood, indicative of fertile soil.

Hammocks are generally the slopes of hills, where are admixed pine, oak, sweet gum, dogwood, and other trees that designate a mixed soil.

The pine forests have nothing remarkable to distinguish them from those of Louisiana ; to which, in every respect, they have a perfect resemblance.

The country on the head waters of Amite river is hilly and healthy ; and well timbered and watered. It is a pleasant, airy, and agreeable region ; having all the natural advantages that can render it a desirable and profitable residence to an industrious people.

Bogue Chito and Pearl rivers have been noticed ;† and their waters draining a country perfectly similar to that of the Amite, it would be useless to enlarge upon them in this place.

Pascagoula river, a beautiful and important stream, rises in the Choctaw country, and drains the space between the Pearl, Tombigbee, and Mobile rivers. The constituent branches of the Pascagoula are the Leaf, Chickisawhay, and Dog rivers.

* See page 89.

† See page 91.

The western branch of Leaf river rises in Wayne county, and, pursuing a S. E. course, enters Greene county, and unites with another and larger branch from the north ; the united stream continues S. E. crosses the 31° N. lat. about eight miles south of which comes in from the north east the Chickisawhay.

The Chickisawhay river rises in the Choctaw country, runs south, and enters Wayne county in the Hyoanée reserve ; continues south, traversing Wayne and Greene counties, until near the S. E. angle of the latter, where the river turns S. W. passes the 31° N. lat. and joins, as has been seen, the Leaf river. The united streams now take the name of Pascagoula, and flows S. E. by S. forty miles, and falls into the gulph of Mexico.

Dog river rises in the Alabama Territory, and flowing south, through Washington and Baldwin counties, crosses the 31° N. lat. continues south, is lost in the estuary of the Pascagoula. Only the mouth of this river is in the state of Mississippi.

Though not so long in its course, there flows in the Pascagoula, as much or more water than does in the Pearl river ; and as navigable streams, the preference is greatly in favour of the former. The bar at the mouth of the Pearl, admits vessels of six feet draught ; and when in the bay and river, that depth continues to the junction of the Leaf and Chickisawhay rivers.

The general aspect of the soil, on the waters of Pascagoula is sterile ; but upon the margin of the waters a considerable surface of good farming land exists. The pine forests reach the gulph of Mexico, on both sides of the Pascagoula bay. The bay is as represented in my map, filled with low islands, which are void of timber. Thick woods approach to the sea shore. however, on leaving the bay either east or west.

The border of the gulph, near the mouth of the Pascagoula river, is esteemed amongst the most salubrious places in that climate. From my own personal observation, and inquiry on the spot, I am inclined to sanction this opinion. I could perceive no causes of putrid exhalation. With the exception of the bay, the country is high, dry, and well supplied with refreshing breezes from the sea. The soil of this coast is sterile, but its unfruitfulness is counterbalanced to the inhabitants by the health they enjoy.

Here many persons retire from New Orleans in the summer months. In the progress of improvement, when New Orleans becomes more and more crowded and extensive, and when suitable accommodations are provided on the bays of St. Louis, Biloxi, and Pascagoula, an agreeable retreat will be open to those who desire to avoid the dangers, real and imaginary, of a summer residence in a large commercial city, on the banks of the Mississippi.

In the interior of the country, the lands watered by the Pascagoula, and tributary streams, have great resemblance to those of Amite and Pearl.

A general character pervades all that part of the state of Mississippi, lying east of Wilkinson county. The three kinds of land noticed in the review of Amite prevails; and with about the same proportions,

STATISTICS
OF THE
STATE OF MISSISSIPPI.

CHAP. IX.

COUNTIES; THEIR NATURAL AND ARTIFICIAL PRODUCTIONS;
TOWNS.

THE ridge of hills that has been described in page 291, divides the State of Mississippi into two unequal sections.* The N. W. section comprises all the counties of Warren, Claiborne, Jefferson, Adams, Franklin, and the greatest part of Wilkinson, and one half of Amite. In the S. E. section are included, one half of Amite, and all Pike, Lawrence, Marion, Wayne, Greene, Hancock, and Jackson counties.

These sections are of very unequal extent; the N. W. containing 3240, whilst the S. E. covers an area of 9840 square miles. The two divisions have very distinctive features of soil, climate, and natural productions. I will review each, and the contrast will appear apparent and striking.

It would be useless to give in detail the particular features of the counties, included in the N. W. section. A steady uniformity prevails in all the region from the Yazoo river to Loftus heights, and even to the 31° N. lat.

* That part of the state to which the Indian title is extinct, is here to be understood.

The western border of the N. W. section, is formed by the banks of the Mississippi. This border is intercepted by the hilly land reaching the river as at Walnut hills, Grand Gulph, Natchez White Cliffs, and Loftus heights. There are many other places where the bluffs approach to within a very short distance of the Mississippi, as at the Petite Gulph, Villa Gayosa, and Pine ridge. The most extensive Mississippi bottoms in this tract is below the mouth of Yazoo, at Palmyra; between Bayou Pierre and Coles Creek; between Villa Gayosa and Natchez; and between the White Cliffs and Loftus heights. These bottoms are in a few places five miles wide, and would not average more than two and a half; which, allowing their length two hundred, would give 500 square miles as the entire superficies in the tract in question, upon which the Mississippi waters flow. Some extent may be added for the river and creek bottoms which protrude the inundated surface into the interior. Six hundred square miles I am induced to believe will be an ample estimate for all the surface between the Yazoo and the south boundary of the Mississippi state, which is liable to annual immersion from the Mississippi, or by other streams rendered stagnant by the swell of that great river. The hilly or broken country, rises like a buttress* from the foregoing plain; producing a country of waving surface, though no part of its extent is considerably elevated. There are but few places in the United States where the soil affords more diversity than does the country watered by the Yazoo, Big Black, Homochitto, Buffalo, and the numerous smaller streams in their vicinity. No part of the earth is perhaps more congenial to the production of its particular staple, than is this region

* See page 94.

to the growth of cotton. That elegant and truly useful vegetable flourishes luxuriantly in the warm and waving soil that constitutes most of the superficies of the N. W. section.

After leaving the level inundated bottoms of the Mississippi, and ascending the bluffs, and for ten or fifteen miles into the interior, the surface of the country is generally composed of a rich loam, and thickly timbered with

<i>Quercus tinctoria,</i>	Black oak.
<i>Quercus alba,</i>	White oak.
<i>Quercus falcata,</i>	Spanish oak.
<i>Quercus nigra,</i>	Black oak.
<i>Quercus obtusiloba,</i>	Post oak, rare.
<i>Quercus phellos,</i>	Willow oak, rare.
<i>Quercus rubra,</i>	Red oak.
<i>Liriodendron tulipifera,</i>	Poplar.
<hr/>	<hr/>
<i>Laurel Magnolia,</i>	
<i>Juglans amara.</i>	Bitternut hickory.
<i>Juglans myris ticaeformis,</i>	Nutmeg hickory.
<i>Juglans nigra,</i>	Black walnut.
<i>Juglans squamosa,</i>	Shellbark hickory.
<i>Juglans laciniosa,</i>	Black hickory.
<i>Laurus sassafras,</i>	Sassafras.
<i>Liquid amber styraciflua,</i>	Sweet gum.
<i>Fraxinus tomentosa,</i>	Common or Red ash.
<i>Fraxinus aquatica,</i>	Water ash.
<i>Diospiros virginiana,</i>	Persimmon.
<i>Fagus sylvestris,</i>	Beech.
<i>Gleditsia triacanthos,</i>	Honey locust.
<i>Acer rubrum,</i>	Red flowering maple.
<i>Celtis crassifolia,</i>	Hackberry.
<i>Carpinus ostrya,</i>	Iron wood.
<i>Carpinus americana,</i>	Horn beam
<i>Castanea pumila,</i>	Chinea pin.

<i>Cerasus virginiana,</i>	Wild cherry.
<i>Populus angulata,</i>	Cotton wood, rare.
<i>Platanus occidentalis,</i>	Sycamore.
<i>Tilia pubescens,</i>	Linden or Lime tree.
<i>Ulmus rubra,</i>	Red elm.
<i>Ulmus americana,</i>	Mucilaginous elm.
<i>Ulmus alata,</i>	Winged elm.

The *Pinus rigida*, at the Pine ridge eight miles to the north of Natchez, approaches within three miles of the banks of the Mississippi. The existence of the Pine at that place is a singular anomaly in vegetation; its growth is confined to an area of not more than twenty square miles. There is nothing in the general aspect of the country to distinguish it from the common bluffs of the Mississippi. The land is excellent, and the pine is admixed with other trees indicative of fertile soil. To the east of this tract, fifteen or twenty miles intervene before the pine timber becomes abundant. The alluvial banks of Fairchild's and St. Catharine creeks, bound the pine ridge to the north, east, and south, and to the west is the Mississippi bottoms.

I have not been informed, that the Pine tree anywhere else approaches so near the margin of the Mississippi river as at Pine ridge.

The timber trees enumerated in the annexed list are found intermingled along the bluffs, upon the creek bottoms, and in fact upon every kind of land to be met with in the country.

The under growth is composed of different kinds of vines; common wild grape, muscadine, dogwood, spice wood, papaw, *morus scabra* (Spanish mulberry,) and brakes of the *arundo gigantea* (great cane;) this vegetable has become comparatively rare, being in great part destroyed by fire and domestic animals.

Upon land thus richly clad by nature has arisen the fine farms that now pour wealth into the lap of their owners. Cotton is at this time and perhaps will ever remain the staple of this country. Tobacco and Indigo have both been cultivated, and the former nearly, and the latter entirely abandoned by the planters. Maize or Indian corn, sweet potatoes, Irish potatoes, and a great variety of other vegetables are cultivated successfully.

The apple, peach, fig, and plum, are the most common fruits; the peach and fig are most easily produced. As in Louisiana, the summer showers do much injury to fruit along the east margin of the Mississippi.

In fact the general observations made in Chap. VI. on the fruits of Louisiana, are applicable to those of the State of Mississippi, with exception of the orange, and other fruits of the same family.

The facility with which the apple in every state of preservation can be brought down the Mississippi, will operate against any great attention being paid to its production in places where it is evidently out of its congenial clime. The production of small grain, wheat, rye, oats, barley, &c. will never become objects of culture where cotton can be made at the rate of 300lbs. to the acre, at a price of 20 cents or more per lb. The production of cotton on more than two thirds of the land included in the section of which I am now treating, will rather exceed than fall short of the quantity I have stated. More than 2000 lbs. in the seed, or above 500lbs. clean cotton, has been taken from an acre, in many instances that have come under my own knowledge. Where flour can be procured at 10 dollars per barrel, or less, it will be purchased rather than made, by a people who are in the habit of realizing such very

considerable emolument from cotton. The reciprocal advantages possessed by the people who inhabit the northern and southern regions watered by the Mississippi, are in nothing more real than in the facility with which the latter can be supplied by the former, with bread stuff, meat, and other articles of food.

In point of salubrity, if the parts adjacent to the Mississippi river are excepted, the country from the Yazoo to the 31° N. lat. is very favourably situated. The surface is dry and waving, little or no low marshy land exists; and the spring and well water excellent. The inhabitants are found to enjoy as much health as upon any spot on earth, in the same parallel of latitude.

The seasons are agreeable, the autumn and winter particularly. But little of the rigours of a northern winter is experienced. I know no place, where from September to April the weather is so uniformly pleasant. The undulating face of the country prevents the roads from becoming uncommonly difficult to pass after heavy rains. Travelling is easy, and seldom long interrupted by floods.

Spring is indeed in all places near the Mississippi, south of the thirty-fifth degree of north latitude, less agreeable than winter. The latter has the mildness of a northern autumn; the former, to much of the heat of a southern summer, adds the inconvenience of frequent and heavy rains.

In the northern and eastern states, there is no season answering correctly to the winter of Georgia, Louisiana, Alabama, and Mississippi. The air in the months of November, December, January, February, and March, in the latter places, is generally mild. Summer, and the early part of autumn, are the seasons when health becomes precarious, but there is little doubt

but that the same preventives I have pointed out, when treating of Louisiana, would obviate most complaints where the fountains of disease, putrid swamps, have scarce an existence.

Perhaps after all that medical men have said upon the maladies of mankind, and with all multifarious drugs of the apothecary's shop, that the road to health is plain and easily trod. In seasons of heat, bilious complaints in their varied forms; and in seasons of cold and moisture, catarrh, asthma, consumption, and phthisic, are the scourges of the human race. Which of those two lists are the most frightful, it is difficult to determine; the latter is, however, but little known in the United States south of thirty-fifth degree of north latitude.

Most men with whom I have conversed, who had the advantage of having resided many years near Natchez, and who had previously removed from the northern or eastern states; and who of course had gained from experience the means of forming a correct judgment, have almost uniformly decided in favour of a residence in the former place. It may be replied to this, that views of interest would have much influence in this preference; but a conviction so general upon the minds of men of all professions and ages, must have a more solid basis than mere temporary interest. It is found that the human frame is less liable to lingering pain, and that life is more easily supported, where the rigours of winter are hardly known. Relieved from much severe labour, it ought not to excite surprise that men migrate from a colder to a warmer residence. If the spirit of emigration in the United States was not checked, by the common though unfounded belief that southern situations were less favourable to health than

northern; a very great change of local population would take place. As matters and opinions are, the stream of migration is S. W. The inhabitants of the New-England states remove to Ohio; those of New-York, New-Jersey, and Pennsylvania, to Ohio, Indiana, and Illinois; those of Maryland and Virginia, to Tennessee and Missouri; and those of the Carolinas and Georgia, to Mississippi, Louisiana, and Alabama. Many exceptions to this course daily occur, but this is the usual course; and the consequence will be, that the great body of persons who daily swell the population of the states of Mississippi and Louisiana, and the territory of Alabama, come from the two Carolinas and Georgia.

It would be useless to designate particularly the counties in the section of country I have been describing; a general sameness prevails. Some difference of climate exists between the northern and southern part; but not of sufficient extent to merit notice in a statistical review. The same vegetables come to perfection in the counties of Wilkinson and Warren, which occupy the extremes.

The three species of soil, Mississippi bottom, Bluff and Pine woods, are to be found in Claiborne and Jefferson. In Adams there is little or no pine woods, as the Pine ridge, though producing the pine tree, has a soil very different from that found in Pine woods, properly so called. Wilkinson possesses, towards the Mississippi, a soil extremely similar to that of Adams; but in the interior, pine occurs. Franklin, being detached from the Mississippi, affords less fertile soil in proportion to its extent than any of the preceding counties, having more pine woods than either.

The whole of this section of the State of Mississippi,

is amongst the most valuable and productive in the United States, in proportion to its extent. Few spots in the world will admit a greater variety of vegetable products; there are none where the natural trees of the forest offer a greater number of species. The list annexed to this article, exhibits a part only of the most remarkable timber trees and underwood. The neighbourhood of Natchez is peculiarly rich in its botanical productions. Superadded to the species given in the list as growing upon and near the bluffs, is the variety offered by the bottoms of the Mississippi. I have, however, in treating of Louisiana, given in ample detail the trees most commonly found upon the rich alluvion of the Mississippi, so that a further notice in this place would be useless repetition.

The geological structure of this region presents some very striking phenomena. The masses of Breccia, that open to the day at the bottom of the bluffs, have been noticed. There can be no reasonable doubt, but that this species of rock forms the basis of the whole country. Digging wells frequently exposes large masses of loose siliceous pebble and sand. Wells are seldom dug of sufficient depth to meet the Breccia. The stone itself, is of very different degrees of connexion; it is in some instances capable of forming mill-stones, but in general its texture is loose, and the parts separate easily. The earthquake of 1812 was sensibly felt at Natchez, affording a strong evidence that the mass of secondary rock found further to the north, extends under the superstratum far beyond where it is ever visible.

On the west side of the Mississippi, the rapids at the west end of Sicily Island is the nearest place to the former river, where the schistus sandstone has been discovered. The rock in Ouachitta is perfectly similar to that

found in Red, Calcassiu, and Sabine, and is the gray sand stone of the Flætz formation of Werner. The loose pebble and masses of sand in many instances form its incumbent strata, and are always found in the vicinity and above the schist. East of the Mississippi, there are many reasons to consider the interior structure of earth the same as to the west. It will be seen when treating of the topography of the Alabama territory, that the southern part of that country is founded upon schistus limestone.

There is a remarkable difference in one respect between countries whose base is calcareous from those resting upon argillaceous materials; the latter are as noted for the quantity and excellence of their springs of fresh water, as the former is for being deficient in both respects. This distinction is not uniform, but it is very general; many striking examples could be cited. There are many places in America in secondary formations, where the decumbent stratum is carbonate of lime, where it is difficult or impossible to procure water, either from springs or wells; but there are few or none where the stratified argillaceous schist prevails, but where fresh water abounds, and if not flowing from fountains can be procured from wells, without any very great difficulty.

The S. E. section, comprising the counties of Amite, Pike, Lawrence, Marion, Wayne, Greene, Hancock, and Jackson, have so much resemblance to West Florida, that little can be added respecting the former that has not been anticipated when describing the latter country.

The S. E. section contains the only sea-coast embraced in the state of Mississippi. Except a very small extent east of Pearl, this sea-coast is high dry land; the pine forest reaching the Gulf of Mexico.

Three beautiful bays indent the shore; St. Louis, Biloxi, and Pascagoula; only the latter ever can be of any great consequence in a commercial point of view.

The islands of Malheureux, Marianne, and Cat-Island, are included in the bounds assigned to both the states of Louisiana and Mississippi. There must have been some oversight in framing the respective acts, which marked the possessions of each state.

The islands are in themselves of no great consequence, they are mere banks of sand, decorated with sea myrtle and a few pine trees. There are two good harbours contiguous to Cat-Island, but its position will render them in a great measure useless to navigation, except as a temporary shelter to vessels approaching the coast.

The chain of islands extending from the Rigolets to Mobile Bay, produces a very safe and commodious navigation between New-Orleans and Mobile, for vessels of a draft not exceeding eight feet. This commerce passing in front of the state of Mississippi will be of little benefit to its inhabitants, except those residing upon Pearl and Pascagoula rivers.

The country included in the S. E. section is yet but thinly peopled; and from the general aspect of the country, it may be safely concluded, that the comparative numbers on the two sections will remain nearly as they are now. In addition to a great superiority of soil, the N. W. section has many other advantages, that can never be extended to that of the S. E.

Taking a comparative view of all the territory included in this state, there are few other states that possess an equally favourable position. The difference of soil and climate is the greatest, Georgia excepted, that can be shown by any state in the Union. Fronting on

the Mississippi, and occupying the thoroughfare from New Orleans to the northern states, the State of Mississippi will ever be respectable beyond its mere nominal population. When the Indian claims are extinguished, this state will possess 28,480,000 acres of land; some part of which equals any soil in the world, and most of it capable of becoming the residence of an active race of human beings. Upon the entire surface, the Cotton can be produced in abundance as a staple; whilst almost every plant necessary to human subsistence can be produced in plenty. The climate is temperate, and most part of the state elevated and salubrious. Few places have formed a more permanent basis for lasting prosperity. To secure the well being of her citizens, demands only a moderate share of talents and virtue in her future legislators; but the beneficence of nature cannot be rendered abortive, without a high degree of folly and cupidity in the administrators of her laws.

I cannot take leave of this State, without feelings of mingled pleasure and regret. I have been a witness to the progress of her citizens, almost the entire period since their emancipation from Spain. In some of her transactions I have myself been an actor; upon her soil I spent some of the fairest years of my youth; upon her soil began this work; a work, that whatever may be its merits, has consumed twelve years of my existence.

Respecting the agriculture of the State of Mississippi, little could be added, not noticed under that head in the statistics of Louisiana. The products of agricultural industry, that claim the attention of the people of the two states, do not, rice and sugar excepted, differ essentially.

Whilst this article was in the press, No. 18, of Vol. XII. of Niles' Register, was put into my hand by a friend. I there found a quotation from my first edition, under the article, Political economy No. 2. I have taken the liberty to insert that part, where mention is made of my name. The facts adduced, and the deductions of Mr. Niles, interest equally all the inhabitants of the United States; where cotton, tobacco, or sugar, are now, or may become staples.

It will be seen in page 224 of this edition, that I have calculated the sugar land of Louisiana, at one million of acres; and leaving three fourths for other objects of culture, allowing two hundred and fifty thousand acres, as the nett surface upon which sugar may be cultivated. I am very confident, that the calculation of the area of the sugar region in Louisiana, is founded upon very accurate data. If Mr. Niles is correct, that Louisiana new makes 30,000,000 lbs. of sugar; and if 1000 lbs. is averaged for the produce of an acre: only 30,000 acres is yet cultivated in sugar; or less than one thirty third part of the surface I have assigned to that staple.

Cotton.—Mr. Niles observes that, “ This great staple has grown up within a very few years. In 1791 we exported only 189,316 lbs; in 1792, 138,328 lbs; in 1793, 487,600 lbs;—ten years after, 1803, we exported 41,105,623 lbs; in 1807, 64 millions; in 1810, 93 millions; in 1815, 83 millions;—and for the year ending with September 1816, nearly 82 millions, as follows:

	<i>lbs.</i>	<i>cts.</i>	<i>Valued at</i>
Uplands	72,046,790	at 27 }	\$24,106,000
Sea islands	9,900,326	at 47 }	
<hr/>			<i>lbs. 81,947,116</i>

“ We have seen an anonymous estimate of the whole

crop of 1816—which gives us 320,000 bales as the whole quantity raised, viz.

In Virginia,	2,000 bales.
North Carolina,	13,000
South Carolina,	120,000
Georgia,	110,000
Louisiana, Tennessee and Kentucky,	75,000
	<hr/>
	320,000

Which are valued thus—

290,000 bales upland at \$75	22,050,000
30,000 " sea island 115	3,450,000
	<hr/>
	*\$25,500,000

“ The bale is not a determinate quantity. But we are told that it may be averaged at 320*lbs.* This estimate then would give us a product of only 102,600.000*lbs.* The average of the four years export before the war, viz. for 1808, 1809, 1810 and 1811, was about 55 millions; but in 1815 we exported 83, and in 1816, 82 millions. We know that the cultivation of this commodity has been greatly extended; and if we can take 80 millions as the surplus quantity over the home consumption, the whole quantity raised can hardly be less than 120 or 130 millions—it having been estimated that our factories could consume 27 millions, as they stood in 1815. These have somewhat declined, perhaps,—but *household* manufactures, as before observed, have greatly increased; and we shall put down the

* This valuation is not at such a high rate, as that made at the treasury department; allowing the bales to be of 300*lbs.* weight each, as it is probable they were rated at.

crop of last year at 125 millions of pounds, of which 13 may have been sea islands.

“ Of *Tobacco* we exported in 1815, 85,337 hhds. and in 1816, 69,241 hhds—the last valued at \$12,809,000, or an average of 185 dollars per hhd. For the years 1808, 1809, 1810 and 1811, the average was somewhat more than 45,000 hhds. The cultivation was declining for several years before the war, but has, since the peace, been far more rapidly extending—and we may accept 70,000 hhds. as the surplus quantity. The table before referred to, estimates the whole crop of last year at 127,000 hhds—valued as follows :

45,000 Virginia,	} at \$130	\$14,562,000
30,000 Louis'na & Kentucky		
7,000 North Carolina,		
7,500 South Carolina,		
7,500 Georgia,		
30,000 Maryland,	} at 96	90

This gives an average of only \$114 per hhd—\$71 less than the treasury estimate of last year. But the price of the article has decreased ; and this may be a pretty fair estimate of the quantity produced. The export of manufactured tobacco is not worth taking into the account.

“ *Sugar* is becoming a very important item in our agriculture ; and the time is close at hand, when it will nearly cease to be imported. Large tracts of land are continually brought into the cultivation of the cane. Mr. *Darby* tells us there are 250,000 acres in Louisiana fit to produce it. We have reason to believe there is a *much* greater quantity than that ;† but 250,000 acres, worked by 83,333 hands, at one to three acres, calcu-

† See page 224 of this edition; or pages 155 and 156 of my first edition.

lated to produce 1000*lbs.* per acre, would give us 250 millions of pounds!—a quantity that we should not know what to do with. Besides, it succeeds well in Georgia, and the most southerly parts of South Carolina. At present, it is the most profitable crop of the planter—Mr. *Darby* estimates the product, *per hand*, thus:

Sugar	at	8 cents per lb.	\$240 per hand.
Cotton		15	180
Indigo		100	140
Tobacco		\$10 per cwt.	107
Rice		6 per bbl.	84

“We have no certain returns whereby to calculate the quantity of sugar and molasses made in the United States. In 1810, the marshals returned 9,665,108*lbs.* of maple sugar, and 9671 *hhds.* from the cane, together about 20 millions of pounds—with 3,590 *hhds.* or 179,500 *galls.* molasses. The quantity of maple sugar made has not, probably, increased; but it may be safe to say that Louisiana now makes at least 30 millions from the cane.

“Rice—the export last year, was 137,848 *tierces*, valued at \$3,555,000, \$26 per *tierce*, nearly. For the years 1809, '10, '11, and '12, the average annual export was about 115,000 *tierces*. The estimate before referred to, gives the whole crop of 1816, as being only 110,000 *tierces*, valued at \$3,600,000. The quantity we think cannot be less than 150,000. But as its home consumption comes in lieu of wheat, corn, and other grain, we shall consider it as already accounted for in the vegetable food we have supposed was consumed. The cultivation of rice appears to be declining.”

The only town in the state of Mississippi worthy particular notice, is NATCHEZ.

NATCHEZ, in Adams county, stands upon the left or east bank of the Mississippi, at $31^{\circ} 33' N.$ lat. $14^{\circ} 20' W.$ from Washington city. The site of Natchez is high and commanding. The town is laid out at right angles upon very uneven ground. Though upon a bluff of the Mississippi, the river cannot be seen from the town, owing to the elevation of the intervening hill. The waters that drain from Natchez, flow into St. Catharine creek. It is difficult to ascertain the present population of Natchez, perhaps 2500 would not be far from the number of persons now residing in that city. This town is well situated for a commercial depot; having a fertile well-cultivated country in its rear. Many very wealthy merchants are established in Natchez, who carry on the cotton business extensively.

There are no public edifices of any particular consequence in Natchez. Most of the private buildings are constructed of wood, though many elegant brick houses have been erected within the last twelve years.

WASHINGTON, about six miles east from Natchez, also in Adams county, has been for fifteen years past the seat of government for the Mississippi territory. This town contains at this time perhaps 1000 inhabitants. It stands on the bank of St. Catharine creek, in a healthy pleasant situation, amid the most wealthy and best peopled settlements in the state. Washington has many allurements as a summer residence over any town near the Mississippi river, south of Tennessee; it is placed in a well-cultivated neighbourhood, the water is excellent, the adjacent country is agreeably diversified with hill and dale, and no stagnant waters in its vicinity.

The state of society does not differ materially in Natchez and Washington. There is much in both of that urbanity that marks the people of the southern

states, and strangers meet an unreserve found in every place where men have much intercourse with each other.

The other towns in the state are yet small, and of no other consequence than being the seats of justice for the respective counties. No city of any great extent can easily rise in the vicinity of New-Orleans; its concentrated advantages will allure population and commercial capital into its own bosom, and prevent the increase of other towns within the sphere of its attraction. Some place on or near the Mobile river, will no doubt become of considerable importance; but a ratio will exist between the cities situated on the respective streams on a similar scale with that between the Mississippi and Mobile rivers.

STATISTICS

OF

ALABAMA TERRITORY.



CHAP. X.

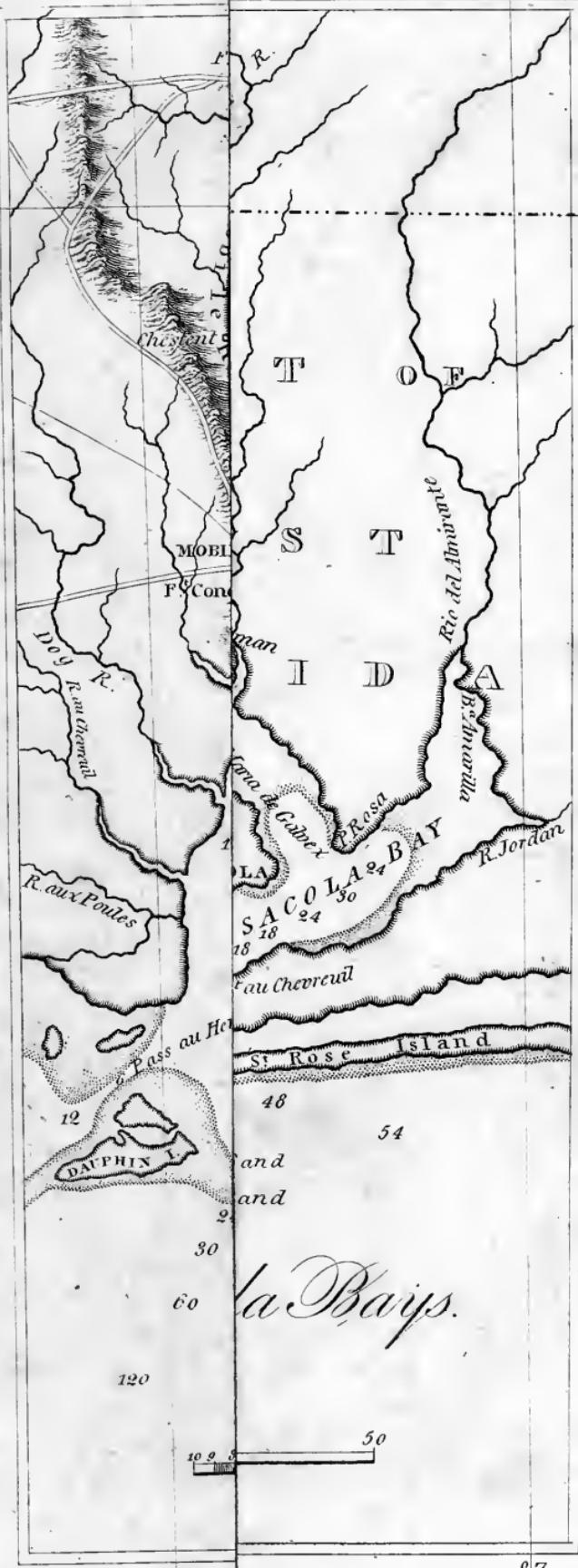
LIMITS, EXTENT, GENERAL FEATURES.

THE Alabama territory is formed out of the east part of the late Mississippi territory, and occupies almost all of the valley of the Mobile and its tributary streams, part of that of Tennessee, and Pascagoula.

This territory was created by the following Act of Congress.

An Act to establish a separate territorial government for the eastern part of the Mississippi territory.

BE IT ENACTED by the Senate and House of Representatives of the United States of America in Congress assembled, that all that part of the Mississippi territory, which lies within the following boundaries, to wit: beginning at the point where the line of the thirty-first degree of north latitude intersects the Perdido river, thence east to the western boundary line of the state of Georgia, thence along said line to the southern boundary line of the State of Tennessee, thence west along said boundary line to the Tennessee river, thence up the same to the mouth of Bear-creek, thence by a direct line to the north-west corner of Washington county, thence



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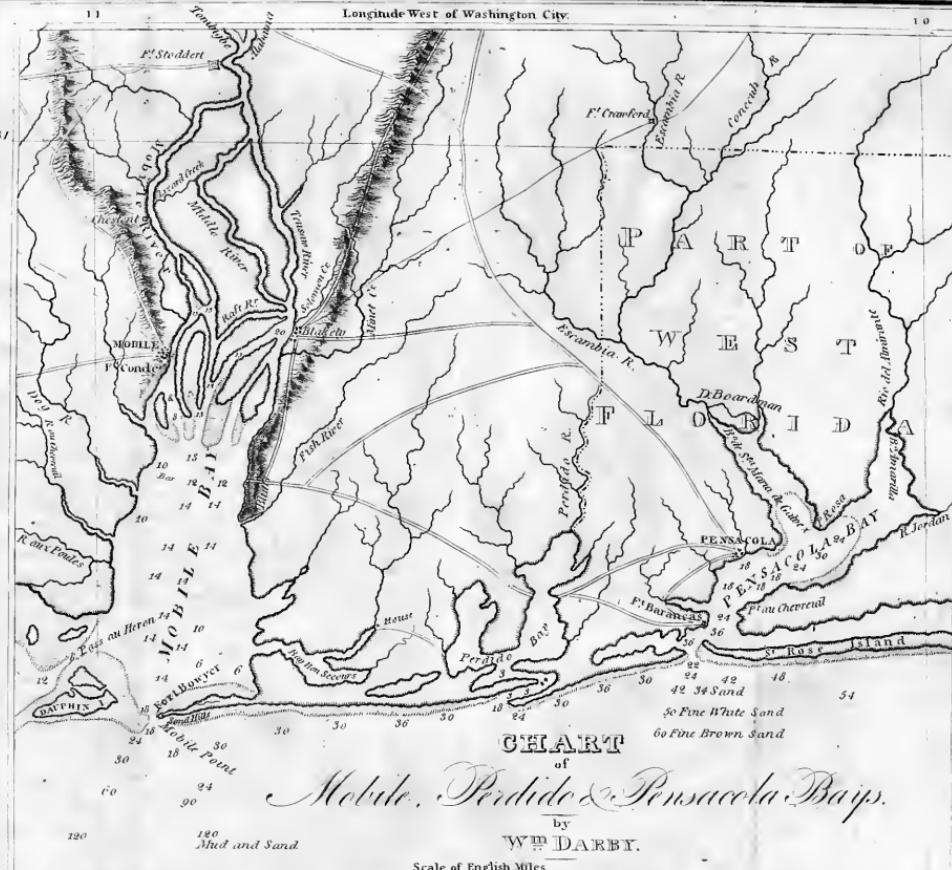
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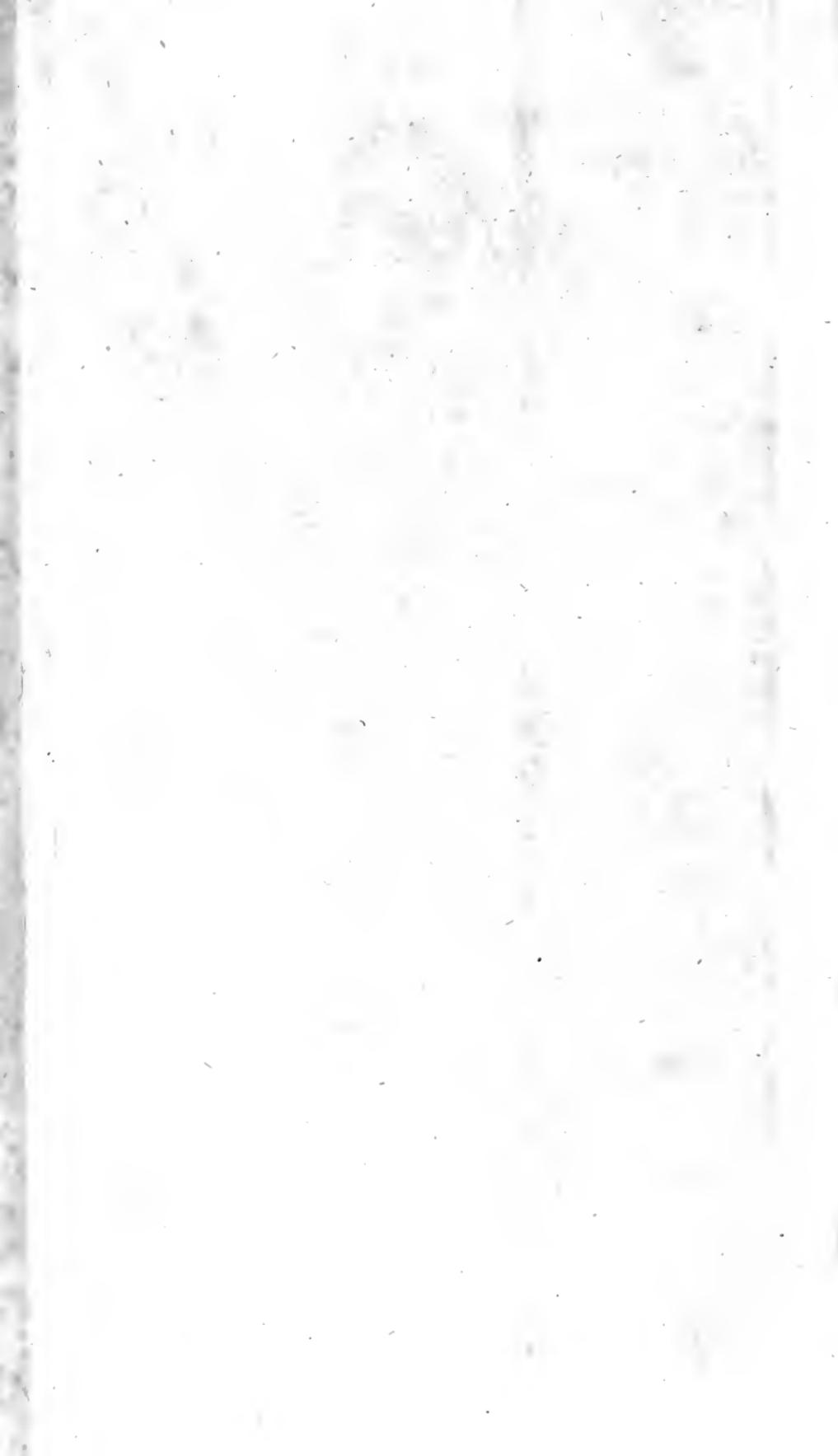
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due south to the Gulf of Mexico, thence eastwardly including all the island within six leagues of the shore to the Perdido river, and thence up the same to the place of beginning, shall, for the purpose of a temporary government, constitute a separate territory, and be called "Alabama."

Sec. 2. And be it further enacted, That all offices which may exist, and all laws which may be in force, in said territory, within the boundaries above described, at the time this act shall go into effect shall continue to exist, and be in force, until otherwise provided by law. And the President of the United States shall have power to appoint a governor and secretary for the said Alabama territory, who shall respectively exercise the same power, perform the same duties, and receive for their services the same compensation as are provided for the governor and secretary of the Mississippi territory: Provided, that the appointment of said governor and secretary, shall be submitted to the Senate for their advice and consent, at the next session of Congress.

Sec. 3. And be it further enacted, That there shall be appointed an additional judge of the Mississippi territory, who shall reside in the eastern part thereof, and receive the same compensation as the other judges; and that the judge appointed by virtue of an Act, passed the twenty-seventh day of March, one thousand eight hundred and four, for the appointment of an additional judge for the Mississippi territory, together with the judge appointed for Madison county, and the judge to be appointed by virtue of this Act, shall possess and exercise exclusive original jurisdiction in the Superior courts of Washington, Baldwin, Clarke, Monroe, Montgomery, Wayne, Greene, Jackson, Mobile, Madison, and of such new counties as may be formed out of them, and shall arrange the same among themselves from time to time: Provided, That no judge shall sit more than twice in succession in the same court, and that the other judges of the Mississippi territory shall exercise, as heretofore authorized by an Act of Congress, or of the territorial legislature, exclusive jurisdiction in the superior courts of the other counties. That a general court, to be composed of the judge appointed by virtue of the Act of the twenty-

seventh of March, one thousand eight hundred and four, the judge appointed for Madison county, and the judge to be appointed by virtue of this Act, or any two of them, shall be holden at St. Stephen's, commencing on the first Mondays of January and July, annually ; who shall have the same powers of granting writs of error to the Superior Courts of the counties mentioned in this section, or which shall hereafter be formed in the eastern division of the territory, which was given by the Act for the appointment of an additional judge, passed the year one thousand eight hundred and four, to the Superior Court of Adams district, and which shall possess, exclusively of the courts of the several counties, the federal jurisdiction given to the Superior Courts of the territories, by an Act passed the third day of March, one thousand eight hundred and five, entitled "An Act to extend jurisdiction in certain cases to the territorial courts."

Sec. 4. And be it further enacted, That the governor to be appointed by the authority of this act, shall, immediately after entering into office, convene at the town of St. Stephens, such of the members of the legislative council, and house of representatives of the Mississippi territory, as may then be the representatives from the several counties within the limits of the territory to be established by this Act ; and the said members shall constitute the legislative council, and house of representatives for the aforesaid Alabama territory, whose powers, in relation to the said territory, shall be until the expiration of the term for which they shall have been chosen, or until Congress shall otherwise provide, the same in all respects as are now possessed by the legislative council and house of representatives of the Mississippi territory ; and the said legislative council and house of representatives of the Alabama territory, so formed, shall have power to nominate six persons to the President of the United States, three of whom shall be selected by him for members of the legislative council, in addition to the number which the said territory may possess agreeable to the foregoing provisions of this section. The said legislative council and house of representatives, shall have power to elect a delegate to Congress, who

shall in all respects, possess the same rights and immunities as other delegates from territories of the United States.

Sec. 5. And be it further enacted, That this Act shall commence and be in force so soon as the convention, the appointment whereof has been authorized by Congress at their present session, for that part of the Mississippi territory lying west of the territory herein described ; of which act of convention, the governor of the Mississippi territory for the time being, shall give immediate notice to the President of the United States, who shall thereupon forthwith proceed to the execution of the powers vested in him by the second section of this act ; but in case said convention shall fail to form a constitution and state government as aforesaid, then this Act shall become null and void, except so far as relates to the third section thereof, which shall take effect and be in force from and after the passage of this Act.

Sec. 6. And be it further enacted, That all persons who shall be in office, within the territory hereby established, when the said convention shall have formed a constitution and state government as aforesaid, shall continue to hold and exercise their offices, in all respects as if this Act had never been made ; and the governor and secretary of the Mississippi territory, for the time being shall continue to exercise the duties of their respective offices, in relation to the territory hereby established, until a governor and secretary shall be appointed therefor, in pursuance of this Act.

Sec. 7. And be it further enacted, That all judicial process in the said territory of Alabama, shall be issued and bear test as heretofore ; nor shall any suit be discontinued, or the proceedings of any cause stayed, or in any wise affected by any thing contained in this Act, or in the act, entitled "An Act to enable the people of the western part of the Mississippi territory to form a constitution and state government, and for the admission of such state into the Union on an equal footing with the original states."

Sec. 8. And be it further enacted, That the town of St. Stephens shall be the seat of government for the said Alabama territory, until it shall be otherwise ordered by the legislature thereof.

Sec. 9. And be it further enacted, That whatever balance may remain in the treasury of the Mississippi territory, at the time when the convention authorized to form a constitution and state government for the western part of said territory may have formed a constitution and state government for the same, shall be divided between the new state and territory, according to the amount which may have been paid into said treasury, from the counties lying within the limits of such state and territory respectively.

Approved, March 3d, 1817.

The Alabama territory lies between $30^{\circ} 12'$, and 35° N. L. Its greatest length from Dauphin Island to the southern line of Tennessee is three hundred and thirty miles; its greatest breadth about 150 miles; the whole extending over 45,000 square miles, or 28,800,000 acres.

The Alabama possesses a very great diversity of soil, climate, and natural, vegetable, and mineral productions. Occupying the valley of the Mobile and its tributary streams, together with a fine body of land upon both banks of the Tennessee river, its position in an agricultural and commercial point of view is extremely advantageous. From the circumstance of so much of the area included within its limits, having been purchased from the savages at the time of the creation of this territory, its political birth is extremely auspicious. And by an accumulation of benefits, the moment is very favourable for an instant and great influx of inhabitants.

Ten years can scarcely elapse, before the Alabama must assume her rank amongst the states of the American Union; and close the column of Republics from the Canadian lakes to the Gulf of Mexico, and from the Atlantic ocean to the Sabine river.

Having the finest river to its length in all North America, and an extensive superficies of excellent soil, the Alabama presents a most desirable field for youthful enterprise.

The counties in the Alabama territory are, Madison, Elk, Blount, Shelby, Clarke, Washington, Baldwin, Jackson, Mobile, Montgomery, Monroe.

Of the above counties, only Mobile, Montgomery, Monroe, Baldwin, Washington, Clarke, and part of Shelby and Jackson, are included in my Map. Jackson county is cut by the provisional division line between the state of Mississippi, and Alabama territory. Shelby lying north of Clarke, extends to the highlands between the Tennessee and Tombigbee rivers. Mobile and Montgomery are not named on the map; I could not insert them, from not being able to procure their boundary lines.

The population is no doubt every where in these counties augmented since 1810; but to Clark, Monroe, Shelby, and Montgomery, almost all the inhabitants have removed within the last six years, and into the three latter since 1815.

It would be useless to extend my geographical notice beyond the limits of my own map. The N. E. part of the territory is yet in the Indian country, of course neither well known or interesting at this time.

The following sketch of this country appeared in the public prints a short time past. It appears to give more ample and correct information of the country upon the Coosa, Tallapoosa, and Alabama, than any account yet made public. I never extended my own personal observations east of the Tombigbee; I have considered this description superior in point of authenticity to any other information I could procure. It is, therefore, inserted entire, with my acknowledgments to the author.

“At the present period, when the spirit of emigration to the lately ceded territory prevails to a very

great extent, a correct topographical description of any part of it cannot fail to be acceptable.

“ Having been engaged for a considerable time past in surveying public land in several parts of the late Creek cession, the account here offered is chiefly the result of actual observation, aided by information derived from other surveyors.

“ The Alabama is known to be the principal river running through this country. Its general course from its head, or junction of Coosa and Tallapoosa, to its junction with the Tombigbee river, is nearly south west; but in its course thither, it makes one remarkable bend and two others of less note. From the junction of Coosa and Tallapoosa rivers to the mouth of Cahaba, a distance of land of about 60 miles, the river runs but a little south of west—thence to the Alabama heights, or Fort Claiborne, a distance by land of 60 or 70 miles, its course is but a little west of south—thence to its junction with Tombigbee, about 60 miles further its course is nearly south west. From this point to Mobile, distant about 40 miles, the river runs nearly south again. Fort Claiborne is at the head of schooner navigation. Large boats ascend from thence up to Fort Jackson, by the Coosa river. The distance to Fort Jackson, by the Tallapoosa river, is five miles less than by the Coosa, and the navigation throughout the winter and spring is good. In dry seasons, however, there is not sufficient depth of water for the Alabama boats. The Coosa river has a fine deep channel from its mouth, three miles by land below Fort Jackson, up to Wetumpka, or the Great Shoals, five miles above the fort. Here, in the present state of things, we may reckon the head of navigation on this river. From the

falls, this river is the Indian boundary up to the mouth of Will's creek, 120 miles, or thereabout.

“ The Tallapoosa is navigable, except in dry seasons, up to the Great Falls, a few miles above Tookabatche, and about 35 miles above Fort Jackson. From the falls down to Fort Jackson, the general course of the Tallapoosa is nearly west.

“ The waters in these rivers, particularly the Tallapoosa and Alabama, are subject to remarkable periodical elevations and depressions, owing entirely to this circumstance:—Many of their tributary streams, originating in, and passing through a country founded on a bed of limestone, are large and respectable water courses in the winter and spring, but in the fall months become perfectly dry. In the Alabama and Coosa rivers, however, there is always a sufficient depth of water for boating.

“ Proceeding south-eastwardly along the boundary line, from the mouth of Line creek, and up the same towards Chatahooche, at the distance of about 40 miles from Tallapoosa, we come to the ridge separating the waters of Tallapoosa and Alabama from those of Conecuh and Escambia. This ridge proceeds westwardly in a direction nearly parallel with the rivers Tallapoosa and Alabama, but bending less to the south, it approximates very fast towards the river below its bend, near the mouth of Cahaba, and becoming less elevated and distinct, it is finally cut off by the grand sweep of the river along the Alabama heights.

“ This tract of country, bounded on the north and west by the river, on the east by the boundary line, and on the south by the ridge, is probably the largest body of good land to be found any where within the limits of the treaty, south of Tennessee river. It comprehends

an area of near sixty townships, or about 2000 square miles, a considerable portion of which is of the first quality, and there is but little of it that will fall below the rank of good second quality. About one half of the townships now offered for sale lie in this district.

“ The river cane-bottom land, I suppose to be equal in fertility to any on the continent, and may average in width a half or three quarters of a mile, the river winding through it in a serpentine course, and leaving the cane-land sometimes on this side and sometimes on that. The outside of the swamp joining the high land, as on most rivers, is low, wet and cut up with ponds and lagoons. Next to the river swamp, and elevated above it by a bluff of from ten to fifteen feet in height, we enter upon an extensive body of level rich land, of fine black or chocolate coloured soil. The principal growth is hickory; black oak, post oak, dog wood, and poplar, are also common, but pine timber is rather scarce. This portion of land is interspersed, more or less, with reed marshes, out of which issues constant running water, and also in many places with flat wet weather ponds, holding water in winter, and becoming dry in summer. After this, come in the prairies. These are wide-spreading plains of level or gently waving land, without timber, clothed in grass, herbage and flowers, insulated by narrow skirts of rich intervalle wood land, and exhibiting in the month of May, the most enchanting scenery imaginable. The soil is generally of a fine black rich cast, and has the appearance of great fertility. Should they prove to be as productive as the soil promises, they will be of great value, as the expense and labour of clearing land will here be saved, and the soil being of such a quality as will not wash away, the land must be very durable. These prairies extend nearly or quite

to the ridge; and as the country is open, dry, and airy, it promises to be healthy. The only objection to this part of the country seems to be the want of water. This inconvenience, however, may probably be removed to a considerable extent by digging of wells. This objection applies to most of the tract within the limits mentioned, except the land immediately on the river, and distant from it from one to three miles; in this range, there is an abundance of cool and pleasant spring water, issuing from the bluffs and reedy heads already mentioned. Several large creeks water this district, which will afford good winter navigation for small boats, of sufficient size to transport the produce of the incumbent farms to the river. The principal of these are the Catoma, Pinchona, Pohlahlia, and Big Swamp creek; all of which afford extensive bottoms of rich cane break and beech swamp. Families living on and near the river, except in select places, will be subject to intermittent and bilious fevers, but they have hitherto appeared to be of a mild type.

“ After passing the ridge we enter into a country of very different character and features from that just noticed. It is generally pine land, intersected with innumerable creeks, rivulets and branches, running southwardly into the bay of Escambia. The head waters of Conecuh, which is the principal river emptying into the bay, spread out over a large extent of country. The creeks and branches have wide swamps, and are in general too low and wet for cultivation. They abound in the finest of timber, particularly white oak of a superior growth, swamp red oak of uncommon size and beauty, beech, maple, poplar, gum, and cypress. The under growth is weed and cane, palmettos, rattan, grape vines, china brier, &c. These swamps afford the

finest stock range imaginable, particularly for hogs, as besides the immense quantity of oak and beech mast, there is a great variety and plenty of ground nuts and roots easily attainable in the soft soil or mud of those swamps.

“ On the margins of the creeks there are generally found strips of good land from a quarter to a half mile wide. In places it is very rich, bearing oak, hickory, ash, and sometimes walnut trees. Next to this is very often found a skirt of rich pine land, dark mulatto soil with hickory, buckeye, and other shrubbery characteristic of rich land. From this kind of land there is a gradual declension to the poor pine woods. On the heads of the numerous branches of Conecuh approaching the ridge, there is a skirt of oak and hickory land five or six miles, running parallel with the ridge. The soil is mostly of a free, soft, grey quality; sometimes it is found rich, strong and red, with an agreeable mixture of oak, hickory, pine, poplar, ash, chesnut, and dogwood, &c.

“ The Sepulgas, Burnt-corn, and Murder creek, lying more to the west, it is said, afford larger bodies of good land than Conecuh; there are none, however, so far as I can learn, very extensive on any of these waters.

“ Of the extent of the navigation of Conecuh, I have no satisfactory account.—The surveyors, however, who run the parallel townships, from the Spanish line progressively to the north or up the river, found it nowhere passable with their pack horses within fifty miles of the Spanish line, without swimming their horses and constructing rafts for their packs. They report it to be a fine deep channel, with a slow eddy current. At the distance of about fifty or sixty miles above the line of demarkation, it divides into two large creeks, and

here is probably the head of boat navigation. This whole tract of country is abundantly supplied with perennial springs of excellent water. Your approach to water is always announced by the wide spreading reed breaks, which uniformly cover the wet bottoms of all the branches, and afford an almost inexhaustible range for cattle.

“No country affords a better prospect of health. From the nature of the soil, however, the population must be thin.

“Of the mineral productions of this country, the most remarkable is the large quantity of stone having the appearance of volcanic lava lying in broken fragments, covering the tops and sides of many of the hills composing the ridge, exhibiting evident marks of having once been in a state of fusion. There are also several places on the head branches of the Conecuh, in and near the ridge, indications of iron ore in considerable quantities, and judging of it from its weight and ferruginous aspect, it is probably rich.

“Among the small prairies in the western extremity of their range, there are inexhaustible quarries of limestone or solid blocks of white hard calcareous rock. By burning a piece of this stone in a blacksmith’s forge, and slaking it, I found it to effervesce rapidly, and making strong and beautiful lime. Amongst this limestone there are also found many testaceous petrifications,* particularly the oyster, clam and cockle shells, some of which are remarkably large, retaining their original form, and exhibiting, on their outside, all the lines and

* This is the same kind of recent limestone found in all the valley of the Mississippi. It forms the super-stratum at the falls of Ohio. These beds of limestone frequently alternate with the floetz sand-stone; in fact, the two rocks are of a similar formation, but differ in their component parts.

nitches of the shell in its natural state, and on the inside almost as perfect a polish as when the shell was first opened.

“ These beds of limestone (carbonate of lime) are great natural curiosities, whether they are considered in regard to their origin, or the process by which these substances have been changed from their original texture to their present state of petrifaction, and while they afford a rich subject for speculation for the naturalist and philosopher, they also supply the mechanic with an excellent material in masonry and architecture.

“ Of the lands lying to the north and west of the Alabama and Coosa rivers, but little has been surveyed, and consequently but little of them is known—an actual survey of this country, however, will soon be made, when its topographical character will be ascertained.

“ With respect to that part of the ceded lands which falls within the limits of Georgia, we have no authentic information but what is derived from the survey of its boundaries; and even here we are deficient in part, not having the traverse of the Chatahooche river, which is the western boundary of this tract, from the mouth of Summochicola to the mouth of Flint river. The estimated distance, however, between these two points is 60 miles; and the course nearly south. Taking this, at present, for the fact, we have the land in the form of a trapezium, whose average length from east to west is about one hundred and seventy miles; and its average breadth, from north to south, about seventy miles. These dimensions will give a product of 11,900 square miles or 7,616,000 acres. Judging of the interior of the country from what has been seen on its boundaries, and the roads passing through it, except what lies between Flint river and Chatahooche, all the rest could

not be sold for what it would cost the state to survey it. What lies between the Flint and Chatahooche rivers, however, deserves more attention. In order to form some estimate of the quantity of land comprehended in this district, we must ascertain as nearly as practicable its dimensions. The distance from the mouth of Summochicola to the mouth of Flint river, I have supposed to be sixty miles—course nearly south. From the mouth of Summochicola on the boundary line, to Flint river, the distance is ascertained to be sixty miles, and six perches east. Thus we have two sides of the tract, sixty miles each, intersecting nearly at right angles. Flint river then, supposing it to run straight, will complete the triangle. These dimensions would give a product of 1800 square miles, or 1,152,000 acres. But judging from what is known to be the general course of Flint river, it must embrace an area of much greater extent. For instead of running directly south west, or straight from the intersection of the boundary line to its mouth, Flint river makes a large curve eastwardly or outwardly. This is inferred from its relative position with the Chatahooche at three several points above. On the Oakfuske trail, the distance across from Flint river to the Chatahooche, is about thirty miles. On the Federal road running nearly west, and thirty or forty miles lower down, the distance across is fifty seven miles. On the boundary line, sixty or seventy miles below the road it is sixty across. There must then be a considerable bend in the river somewhere below the line. This bend is probably at the limestone bluff, twenty or thirty miles below the line, as is represented in Mr. Mellish's late improved map of the United States.

“From Chatahooche on the line to Flint river, there

is about a third of the distance good land. In one place particularly, between Herod's creek and Kitchaphone (a large creek) a distance of seventeen miles, there is a body of oak and hickory land of a good second quality, finely timbered and lying sufficiently level, extending without a break, from Herod's creek to within a mile of the large creek Kitchaphone, a distance of sixteen miles. In this land we found no water crossing the line between the two creeks. Water was found, however, on the south side of the line. Thence to Flint river the land is generally poor, except about half a mile on the river, which is fine soft grey land, well timbered and near the river of a rich soil.

“ Between the two rivers we cross five large creeks, each of which afford more or less good land, and on one or two of them (Kitchaphone and Amakulla) there is a prospect of good Mill seats.

“ Proceeding from the line down towards the point, I am told the proportion of good land increases: but be the proportion of good land more or less, as it is the only part of the whole tract received from the general government that will afford any revenue, it would be well for the state to make some disposition of it, and bring the funds thence arising into operation.

W. ROBERTS.”

There is an elongation of the Alabama territory south of the 31° N. lat. and lying between the east boundary line of the State of Mississippi and the Perdido river. This tract covers about 3850 square miles, including Mobile bay, and the islands Dauphin, Massacre, Petitebois, together with the expanse of water between the islands and the main land. This tract formed once a part of West Florida, and is of more

importance from its position than from either its extent or productions.

Mobile bay is by far the most commodious entrance to the interior of the country that exists within the limits of the United States upon the Gulf of Mexico. A long point of low sand bar projects from the eastward, and comes within less than three miles of Dauphin Island ; this island is about five miles long, of a triangular form ; it is low sandy and barren. There are two entrances into Mobile bay ; the main pass between Dauphin Island and Mobile Point, and pass au Heron between Dauphin Island and the main shore. The main pass is narrow and circular, winding round Mobile Point, and being close on shore, forces vessels to pass within half gun shot of the point. The intermediate space between the pass and the east point of Dauphin island is shallow. At high tides eighteen feet water is found on the bar. The pass au Heron or inside passage has only ten feet on its bar, but affords sufficient depth for schooners and other smaller vessels trading between Mobile river and New-Orleans.

MOBILE Town, and Fort Condé, stands on the west side, at the head of the bay : the site is elevated fifteen or twenty feet above tide water, and is dry and solid. The approach to Mobile is rendered in some measure difficult from a low grassy island lying opposite the town. There is good shelter for vessels within the island, and depth of water to permit lying near the bank.

It is doubtful whether, as a commercial depot, the site of Mobile is well chosen ; the country in its rear is for a considerable distance barren. The Tensaw or eastern branch of Mobile river, is deeper and wider than the western, and perhaps more suitable

to have on its banks the trading mart of this noble stream.

All the surface drained by the Tombigbee, Black Warrior, Alabama, Coosa, Tallapoosa, Cahaba, and other tributary branches of Mobile river, exceeds 40,000 square miles, 26,600,000 acres. Some place near the head of Mobile river must become an emporium for the commerce of this wide region.

Fort Stoddert is situated on the west bank of the Alabama; it is a place of little note.

FORT ST. STEVENS, the seat of government for Alabama territory, stands on the west bank of Tombigbee, at the head of schooner navigation; is a very thriving town, and will no doubt increase rapidly in extent and commercial importance.

HUNTSVILLE, in Madison county, is a thriving village, seated amid a wealthy and industrious settlement.

The other towns or villages of Alabama territory are yet in their infancy; nothing can be anticipated respecting their future progress.

ATTESTATIONS.

The undersigned has examined a Map of the state of Louisiana, by William Darby, of the county of Opelousas, which has long engaged the attention of that gentleman, and is believed for the most part, to be the result of his personal observation.

The undersigned cannot vouch for the entire accuracy of this Map, but as far as his local knowledge enables him to judge, the work appears to be faithfully executed, and to present an accurate view of Louisiana.

Given at New Orleans, on the 29th of June, 1816.

WILLIAM C. C. CLAIBORNE.

Head Quarters, New Orleans, 5th April, 1815.

I have no doubt, whatever, that Mr. Darby's Map of Louisiana is more correct than any which has been published of that country.

He has certainly taken extraordinary pains to acquire correct information; and so far as my opportunities have enabled me to judge, I am induced to think his delineations very exact.

ANDREW JACKSON,

Maj. Gen. com'g. 7th Mil. Dis.

Mr. William Darby having mentioned to me his intention to publish a General Map of the state of Loui-

siana, I have no doubt, from the industry and capacity of Mr. Darby, his Map is correct. It is drawn principally from actual survey and the most minute observation. Mr. Darby having been a surveyor in this country, and very extensively engaged as such, and possessing a genius most peculiarly adapted, and directed to geographical studies, I am of opinion his Map will be very full and minute. Having some acquaintance with the topography of Louisiana, on examining his Map I find it very accurate, as far as my observation has extended.

No trouble, expense, or labour have been spared by Mr. Darby in compiling his Map, and the scale upon which it is proposed to be published, will make it the most full, perfect, and complete Map of Louisiana, which has ever been published.

The historical notes proposed to be appended by Mr. Darby, from the extent of his general information and capacity, I have little doubt will be no small acquisition as well to the literature as the history of the United States.

WILLIAM O. WINSTON.

New Orleans, April 1, 1815.



I have examined Mr. Darby's Map of Louisiana, and am of opinion that the delineations are faithfully drawn, and that it exhibits much more correct information of the topography of this country, than any Map heretofore published, and I heartily concur in the opinions expressed by maj. W. O. Winston, as above.

Given at New Orleans, April 2d, 1815.

EDMUND P. GAINES,
Maj. Gen. by Brevet.

I have no hesitation to say, that from my knowledge of the country, and by the comparison with our original surveys made at great expense and now in my possession, that the Map of Louisiana, published by Mr. William Darby, is by far the most correct which is extant—particularly in the important communications of the Iberville on the east, and the Fourche and Atchafalaya outlets on the west, with the Mississippi; and also the mouths of that river, and its general course and various inflexions.

JAMES WILKINSON.

Philadelphia, April 19th, 1816.



“ Mr. William Darby, to whom I am indebted for the Statistical View and Table, has been engaged for a number of years in preparing an elaborate work on Louisiana. Possessing strong original genius, with considerable acquirements, and indefatigable industry, the public may expect something substantially useful in his labours. He has almost completed, from actual survey, a map of the new state of Louisiana; a work of vast difficulty and labour, from the strange configuration of the country, being cut up, and infinitely diversified, by bayous, swamps, lakes, lagoons, and a thousand other objects calculated to impose difficulties on the undertaking.”

(View of Louisiana, by H. M. Brackenridge, esq—pref. p. 5.)



New York, 6 mo. 11, 1817.

Respected friend, I have seen and examined thy map of Louisiana with approbation and pleasure, because it appears to me the most correct of any map of that country which has come under my observation.

From the opportunities thou hast had of acquiring a knowledge of that interesting portion of the United States—of its topography—of its mineralogy—and of its vegetable productions, and from thy talents and industry much might have been expected. Thy Map and Geographical description have, in my estimation, redeemed the pledge, and afford much accurate and valuable information.

If this testimony can be of any service to thee, or to geographical science, it is freely given and at thy disposal.

Respectfully, thy friend,
ISAAC BRIGGS.

William Darby.

—♦—
Monticello, June 22, 1817.

I thank you, sir, for the copy of your description of Louisiana which you have been so kind as to send me. It arrives in the moment of my departure on a journey of considerable absence. I shall avail myself of the first moments of leisure after my return to read it, and doubt not I shall receive from it both pleasure and information. The labours of an oppressive correspondence reduce almost to nothing the moments I can devote to reading. Accept the assurance of my great respect and consideration.

TH: JEFFERSON.

P. S. The Rio Norte is unquestionably the western limit of Louisiana, and is so claimed by us.

—♦—

Extract from Walsh's American Register.

“ Mr. Brackenridge, who has arranged the article

on the Florida question, is the author of the well-known "Views of Louisiana," the most valuable work of the kind, along with the Geographical Tract of Mr. Darby, recently published, which our literature has as yet produced."

Several original works of a recent date, fulfil their promise and are substantially nutritive—Such are the three discourses of the hon. Dewitt Clinton; the statistics of the hon. Timothy Pitkin; the views of Louisiana, by Mr. Brackenridge; and the geographical tract of Mr. Darby.

Walsh's American Register. Introduction XXVII.



Extracts from the Medical Repository.

"Mr. William Darby appears, by his work, to be a gentlemen of high scientific and literary acquirements. His task of a descriptive geographical work embraces all that relates to the soil, produce, and natural history of Louisiana; and corrects not a few mistakes on many of those subjects which had remained unsettled, owing to want of sufficient observation, and of proper documents. No known traveller in that country has ever bestowed so much time and fatigue in collecting correct materials, and surveying distant and inaccessible points throughout the range of the various districts, the names of which, half Indian and French, would not perplex a little those who never were acquainted with the history of this interesting section of the New World, and which has "experienced singular vicissitudes of fortune, and a frequent change of sovereigns."

"In its former governments, Louisiana was divided

into parishes; but it was, nevertheless, geographically delineated, according to its natural grand prairies or meadows, into which the original settlers had seldom penetrated; it was therefore highly proper for Mr. Darby to attend to those very significant territorial divisions, especially having accompanied his work with a large and scientific map, in which he wished to avoid many conflicting subdivisions of the legal county lines of the present government. Agreeably to this cogent consideration, and after having surveyed and described the prairies and the rivers, the author enters into the subject of each of the 24 parishes, giving their statistical tables, produce, and natural history. We are pleased to find also that in the course of its performance, no question connected with philosophy, public economy, and local improvements, has escaped the discussion or criticism of the author, to whom the public are much indebted for a valuable historical appendix, with a view of establishing the titles and claims of the United States to the original boundaries of Louisiana, beyond the Sabine, on the west, and to the Perdido on the east.

“Another motive for calling the attention of the public to the work of Mr. Darby, is one also which reflects infinite honour upon his heart and patriotism, for the account he gives us of the manners and character of the Louisianians. Enlightened men, who can, by proper means, and in opportune time, unite and assimilate the feelings and dispositions of people of different origin and habits, and direct them to one common interest and reciprocal protection, are certainly entitled to rank among great benefactors of the present age, and of future generations.”

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VOCABULARY.
OF
TERMS USED IN THIS WORK

<i>Acer rubrum</i>	Red flowering maple.
<i>Acer nigrum</i>	Black sugar maple.
<i>Acer negundo</i>	.....	Box elder.
<i>Amygdalus persica</i>	.....	Peach.
<i>Andromeda racemosa</i>	.....	Sorrel tree.
<i>Annona triloba</i>	.....	Papaw.*
<i>Arundo gigantea</i>	.....	Large cane.
<i>Arpente</i> †		
<i>Betula lenta</i>	.....	Black birch.
<i>Bignonia catalpa</i>	.....	Catalpa.
<i>Bayou</i> ,—This word, originally Spanish, signifies the diminutive of bay—but in Louisiana the term is synonymous with the English word creek, and consequently becomes the diminutive of river.		
<i>Breccia</i> , pudding stone composed of rounded pebbles, embodied in some other substance.		
<i>Cactus cylindricus</i>	.....	Prickly pear.
<i>Carpinus ostrya</i>	.....	Iron wood.
<i>Carpinus americana</i>	.....	Horn beam.
<i>Castanea pumila</i>	.....	Chincapin.
<i>Celtis crassifolia</i>	.....	Blackberry.
<i>Cerasus caroliniana</i>	.....	Laurier almond,
<i>Cerauss virginiana</i>	.....	Wild cherry.
<i>Chamaerops louisiana</i>	.....	Palmetto, or latania.
<i>Citrus aurantium</i>	.....	Sweet orange.
<i>Cornus florida</i>	.....	Dogwood.
<i>Cornus alba</i>	.....	Swamp dogwood.
<i>Creole</i> —A term given to the offspring of Europeans born in America, the term has been generally applied to the descendants of French & Spaniards.		

* Omitted in the text, though plentiful in the eastern part of the settlements of Opelousas, and the adjacent parts.

† See page 181, note.

Crevasse—from the French verb *crever*, to burst.

Cupressus disticha Cypress.

Diospiros virginiana Persimon.

Fagus sylvestris Beech.

Fraxinus tomentosa Red ash.

Eraxinus aquatica Water ash.

Flatz, or flat—This term has been adopted by Werner, to designate schist or slate rock, which lie in a horizontal position.

Gleditsia monosperma Water locust.

Gleditsia triacanthos Honey locust.

Ilex opaca Holly.

Juglans cathartica Butternut.

Juglans amara Bitternut hickory.

Juglans aquatica Swamp hickory.

Juglans laciniosa Thick shell-bark hickory.

*Juglans myristiciformis** Nutmeg hickory.

Juglans nigra Black walnut.

Juglans porcina Pignut hickory.

Juglans squamosa Shelbark hickory.

Juniperus virginiana Red cedar.

Laurus sassafras Sassafras.

Laurus benzoin Spicewood.

Laurus caroliniensis Red bay.

Lérée—large ridge of earth thrown up along the banks to confine the waters in the bed of the Mississippi and other rivers, and comes from the French verb *lever*, to raise.

Liquidambar styraciflua Sweet gum.

Lividodendrum tulipifera Poplar.

Magnolia glauca White bay.

Magnolia grandiflora Large laurel.

* Michaux, in his incomparable work on American trees, has, I believe, given, for the first time, the nutmeg hickory a place in natural history. This tree grows usually along the slopes of hills in rich land; and is plentiful on the bluffs in western parts of the state of Mississippi, and in all the broken fertile country west of Atchafalaya.

<i>Morus rubra</i>	.....	Mulberry.
<i>Morus scabra</i>	.....	Spanish mulberry.
<i>Muriate of Soda</i>	.....	Common culinary salt.
<i>Nomades</i> ,—people who have no settled abode.		
<i>Nyssa aquatica</i>	.....	Tupeloo.
<i>Nyssa sylvatica</i>	.....	Black gum.
<i>Pavia lutea</i>	.....	Buckeye.*
<i>Pinus rigida</i>	.....	Xitch pine.
<i>Pinus taeda</i>	.....	Loblolly pine.
<i>Populus angulata</i>	.....	Cotton wood.

Prunus cerasus—the cherry tree, this excellent fruit was brought from Cerasus in Pontus, about 80 years before the christian aera by Lucullus. The tree flourishes only in latitudes approximating its native climate. The name by which this fruit is known in both the English and French languages, is a corruption of the name of the town from which it originated.

<i>Platanus accidentalis</i>	.....	Sycamore.
<i>Phytolacca decandra</i>	.....	Poke.
<i>Presidios</i>	.....	Spanish posts.
<i>Quercus alba</i>	.....	White oak.
<i>Quercus aquatica</i>	.....	Water oak.
<i>Quercus falcata</i>	.....	Spanish oak.
<i>Quercus ferruginea</i>	.....	Black jack oak.
<i>Quercus lyrata</i>	.....	Swamp white oak.
<i>Quercus macrocarpa</i>	.....	Post oak.
<i>Quercus obtusiloba</i>	.....	Willow oak.
<i>Quercus phellos</i>	.....	Red oak.

* In the state of Mississippi and Louisiana, the Buckeye is a dwarf shrub; but no perceptible difference appears in the flower or fruit, from that found in other parts of the United States.

Quercus rubra Black oak.

Quercus tinctoria Live oak.

Quercus virens Overcup oak.

Rigolet—A water that flows both ways.

Robinia pseud-acacia Black locust.

Robinia pumila Dwarf locust.

Robinia bistineau Bistinean locust.

Rubus villosus (or *fruticosus*) Blackberry.

Rubus pubescens—This species of the

Rubus is omitted in the text,
tho' very abundant along the
banks of the Mississippi, At-
chafalaya, and in lesser quan-
tities, near almost every river
in the regions embraced by
my work.

Sambucus rubra Red-berried elder.

Tilia pubescens Downy Linden.

Ulmus americana Mucilaginous elm.

Ulmus rubra Red elm.

Ulmus aquatica Swamp elm.

Ulmus alata (winged) Large leaved elm.

Vacherie—A farm where cattle are

kept, from the French noun
vache, a cow.

Vaccinium stamineum Large whortleberry.

Vaccinium arboreum Tree whortleberry.

Vaccinium macrocarpon Cranberry.

Vitis verrucosa Muscadine.

Vitis laciniosa—Parsley leaved water grape vine.

Vitis riparia River grave vine.

* The live oak is limited to the following range in Louisiana—beginning on the Mermentau lake; thence up the lake and river to the mouth of the Bayou Queue Tortue; thence along that bayou to its source; thence with the line of demarkation of Opelousas and Attacapas, to the mouth of Courtableau; thence in nearly a direct line to the junction of Amite and Comite; and thence east to Perdido Bay. Is is singular that this tree is found in all parts of Attacapas, and cannot be considered amongst the forest trees of Opelousus. On the Sabine and Calcasieu, it is very rare; but becomes abundant on the lower Mermentau.

It is to be regretted that more care has not been taken in Louisiana to preserve this valuable wood; the tree is of slow growth, and is rapidly destroyed, by burning cane brakes, by cleaning the land where it grows, and various other causes.

EXPLANATION OF THE MAP.

THE principles upon which the large Map of Louisiana and adjacent regions has been framed, demand a more explicit developement than will be found in the body of the work.

The points upon the 31° N. latitude, were laid down from Ellicott's survey. The same line of 31° N. lat. was, subsequently to Mr. Ellicott's survey, extended to the Sabine river by the authority of the United States' government. From the line of 31° N. lat. was made the general survey of the State of Louisiana, the State of Mississippi, and the south part of Alabama territory. In this manner was surveyed all the interior parts of the State of Louisiana east of the meridian of Natchitoches, south of Red river; and north of that river, all the region included in the state between it and the Mississippi river; and in the State of Mississippi all the settled parts thereof north of 31° N. lat.; and in the Alabama territory all the settled parts thereof included in the counties of Washington, Baldwin, Clarke, Montgomery, and Monroe. The documents arising from these surveys were carefully collected and collated. I was myself one of the surveyors employed in the work, from 1806 to 1814. Before acting as surveyor, I had commenced collecting materials for my then intended work; a collection that I have never since suspended, when any matter could be procured that could add correctness, or extension to my work.

I was obliged, however, to make very expensive ad-measurements beyond the work performed in virtue of the laws of the general government. The State of Louisiana south of Red river, and west of the meridian of Natchitoches, has never been surveyed except by myself. The waters of the Sabine, the mouth and

western branches of the Calcasieu river, were surveyed by me in 1812 and 1813; and at my sole expense. The same process I was obliged to perform with many other parts of the country; particularly West Florida, Mobile Bay, the islands between Mobile Bay and the mouth of the Mississippi, and the numerous outlets of the latter stream. The Parish of Orleans, and the coast of the gulph of Mexico from the mouth of Lafourche to Barataria inclusive, was laid down from a survey made by Mr. B Lafon, in virtue of an order of the supreme court of the then territory of Orleans; a copy of the Map of this parish, made from this survey, and certified under the hand of Mr. Lafon, is now in my hands.

Only to those who have ever been engaged in making geographical delineations from actual survey, need it be stated, the painful process of forming such a Map as mine. The whole work is from original document. Though not extensively aided by public patronage, it is but justice to acknowledge the liberal conduct of the officers, at the seat of the general government. From these gentlemen I received every assistance that I could expect; and without their generous aid, could never have completed my design.

From some cause, that time may perhaps explain, the office of the Surveyor of the lands of the United States south of Tennessee, since Col. Thomas Freeman* was at the head of the office, was always shut against every application I made for documents from it. Though promised both by himself and clerks, I never succeeded in receiving one single point from either. Of course was forced to procure at Washington,

* I am happy in being able to subjoin, that the above is the only exception to liberal and gentlemanly aid, that I experienced in the progress of my work.

in the District of Columbia, that information that ought to have been given, at Washington in the State of Mississippi. The county lines, in the State of Mississippi and Alabama territory, I procured from the Post Master general ; the water courses from the general land office at Washington city.

I have in few words given the basis upon which my whole work has been founded. In addition however to the survey, I visited in person almost the entire space represented upon my Map. Nearly all the observations made in my Statistics are founded upon personal observation ; and whatever may be their merit as philosophical deductions, they are my own. Much of my Map, and with little exception all my geographical descriptions, are the fruit of my bodily and mental labour. I am the only man who ever did attempt and execute a survey of the Sabine and its confluent waters.

WILLIAM DARBY.

New-York, August 25th, 1817.











Deacidified using the Bookkeeper process.
Neutralizing agent: Magnesium Oxide
Treatment Date: Dec. 2004

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